

Nos. 2013-1261, -1550

**United States Court of Appeals
For The Federal Circuit**

IN RE VISTAPRINT TECHNOLOGIES LTD.

Appeals from the United States Patent and Trademark Office, Patent Trial
and Appeal Board in consolidated Reexamination Nos. 90/009,295,
90/009,296, 90/009,313, and 90/009,315

BRIEF OF VISTAPRINT TECHNOLOGIES LTD.

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September 10, 2013

CERTIFICATE OF INTEREST

Counsel for the appellant Vistaprint Technologies Limited, certifies the following:

1. The full name of every party or amicus represented by me is: **Vistaprint Technologies Limited;**
2. The name of the real party in interest represented by me is: **Vistaprint Technologies Limited;**
3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are: **Vistaprint Limited;**
4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this Court are: **Fish & Richardson P.C.: John A. Dragseth; Richard J. Anderson.**

Dated: September 10, 2013

/s/ John A. Dragseth
John A. Dragseth

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STATEMENT OF RELATED CASES

U.S. Patents 6,247,011 and 6,631,375, the subjects of these consolidated appeals, are also the subject of litigation pending in the U.S. District Court for the District of Minnesota: *Vistaprint Technologies Limited vs. 123 Print Inc., Drawing Board (US) Inc. (d/b/a Stationery House Inc.), and Taylor Strategic Accounts, Inc.*, CA 07-02298 (D. Minn).

STATEMENT OF JURISDICTION

These consolidated appeals arise from final decisions of the Patent Trial and Appeal Board. The Board's decisions in the two Reexaminations were dated July 17, 2012, and disposed of all issues in the subject reexaminations. The Board denied Vistaprint's requests for rehearing in decisions dated September 12, 2012, and June 12, 2013, and Vistaprint timely filed its Notices of Appeal on February 5, 2012, and June 27, 2013, respectively. This Court has jurisdiction over these appeals under 28 U.S.C. § 1295(a)(4).

STATEMENT OF THE ISSUE

1. Did the Board err in affirming an obviousness rejection of Vistaprint's claims that recite the authoring of an electronic document and translation of the document to a prepress format, based on the combination of the Corel Whitepaper and Furman references, where:

- (a) The Examiner's rejection was based on an erroneous reading of the Corel Whitepaper, and under a correct reading there would have been no reason to combine the references to arrive at the claimed invention;
- (b) Vistaprint offered un rebutted evidence that the claims are patentable over the prior art, while the Examiner and Board cited no evidence in support of the rejection; and thus
- (c) The Board's conclusion of obviousness, based on a combination of a reference that does not need any translation, and would not work with translation, with a reference that discloses translation, fails as a matter of law?

STATEMENT OF THE CASE

These consolidated appeals are from decisions of the Patent Trial and Appeal Board that affirmed claim rejections in two related *ex parte* reexaminations of patents owned by appellant Vistaprint Technologies Limited (“Vistaprint”). The appealed claims relate to computerized prepress systems and methods that use an authoring tool to allow a person to create an electronic document, and a translation component that automatically translates the document into a prepress format for printing. In each reexamination, the Examiner finally rejected the appealed claims on the ground that it would have been obvious to combine a Corel Whitepaper reference with a Furman patent to arrive at the claimed invention.

In appeals from each proceeding, the Board affirmed this rejection, despite Vistaprint's showing that (a) the Corel Whitepaper describes a single-format system that does not need translation to print, and in fact touts its ability print across multiple platforms without translation by adhering to the single format, and (b) a skilled artisan would have had no reason to combine the Corel Whitepaper, which does not need, but rather avoids the need, for translation in printing, with Furman, which describes translation. Rather, the Examiner and Board offered no evidence to support their position and no legally supportable articulation of a rationale for combining these references to arrive at the claimed invention, and thus failed to establish *prima facie* obviousness.

After denial of requests for rehearing in both proceedings, Vistaprint appealed to this Court, which granted Vistaprint's motion to consolidate the two appeals.¹

On appeal, Vistaprint contends that: (a) the Examiner's rejection is based on an incorrect understanding of, and flawed assumptions regarding, the prior art cited in the rejection, and, properly understood, there would have been no reason to combine the disclosures in the prior art to arrive at the claimed invention; (b) neither the Examiner nor the Board offered any evidence to support the rejections or rebut specific evidence submitted by Vistaprint; and (c) the rejection thus fails as a matter of law and should be reversed.

We turn first to a discussion of the patents on appeal.

¹ This brief covers two consolidated appeals in which the records from the Patent Office are substantially similar in material respects. Both reexaminations involve related patents and the same prior art references, and the Board decisions under review are materially identical in terms of analysis and conclusions. Appellant's citations to the record from either of the reexaminations are exemplary of the full record unless otherwise noted. In instances where clarity or completeness requires it, citations are provided to both reexamination records.

STATEMENT OF FACTS

A. The Inventions and Patents on Appeal

Vistaprint is a leading online provider, to small and micro businesses throughout the world, of marketing products, promotional materials, websites, and printed products, including print on demand products.

This appeal involves two Vistaprint patents:

- Jecha et al. patent 6,247,011 (“Computerized Prepress Authoring for Document Creation”) (“the ‘011 patent”). [A104-27]
- Jecha et al. patent 6,631,375 (“Administration and Search and Replace of Computerized Prepress”) (“the ‘375 patent”). [A128-56]

The patents relate to computerized prepress systems and methods. As the patents describe, the publishing process typically requires several steps to complete printed publication successfully. [A122(1:11-24)] These steps include planning and organizing, design and content development, and prepress tasks in which electronic files are prepared to be reproduced with ink on paper. Prepress involves the preparation of all of the electronic files that will be used to create a publication printed with paper and ink. [*Id.*(1:15-28)]

However, portions, if not all, of the prepress process are difficult for non-professionals to accomplish. [Id.(1:25-41)] For example, precisely matching the colors that one sees on a computer monitor to the colors printed on a corporate brochure or large poster can be a real challenge. While tools such as Adobe

PageMaker and Quark Express enable professionals to create professional documents, most non-professionals find these computer programs complex and difficult to use. Consequently, although computers that sit on the desks of non-professionals are sufficiently powerful to handle such tasks, the users themselves may not be sufficiently knowledgeable to perform these tasks. Furthermore, even for experienced professionals, the prepress process is fraught with problems. For example, the professional must know the type of paper and ink output that is desired before transferring an electronic version of a document into a format from which paper copies can be printed. Thus, even for experienced professionals, the prepress process is not tightly integrated enough to achieve fast, easy, and cost-effective print publishing. [*Id.*]

The '011 and '375 patents address these problems by providing a novel computerized prepress system that includes a "prepress software system." The prepress software system includes one or more authoring tools and a prepress translation component. An authoring tool allows a user to create an electronic document, display the document in WYSIWYG ("what you see is what you get") form to the user, and allow a user to select and edit the document while at least a portion of the electronic document is displayed. The translation component then translates the document into a prepress format file. When the prepress file is used to produce a document, the document is consistent with a WYSIWYG image

displayed to the user on the computer by the authoring program, so that the user need only be concerned with authoring the electronic document and not with creating the prepress format file. [A122(1:45-58, 2:4-21); A125(7:34-37)]

The authoring tool and translation component are elements of all claims at issue in this appeal, and are at the heart of the appealed claim rejections. Relevant language from the claims of each patent is shown below:

Claim 1, '011 patent:

A computerized prepress method comprising:

storing on a server computer a computerized prepress software system, wherein the prepress software system includes one or more document authoring tools and at least one prepress translation component, further wherein at least some of the authoring tools are downloadable to a client computer to be used to author an electronic document and the translation component is used to produce a prepress format file from an authored electronic document

[A125(8:12-21)]

Claim 1, '375 patent:

A computerized prepress method comprising:

storing on a server computer system a computerized prepress software system, where in the prepress software system includes a document authoring program downloadable from the server to a client computer, the program having one or more authoring tools used to create an electronic document;

. . . .

the software system further configured to provide that at least one of the authoring tools is adapted to create an electronic document using the client computer, and that the electronic document is uploaded to the server computer system in a form allowing a translation component to create a prepress format file so that when the

prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need not be concerned with creating a prepress format file

[A153(10:14-39)]

Claims 1-6 and 10-29 of the ‘011 patent, and claims 1-9 and 13-44 of the ‘375 patent are at issue in this appeal. All claims stand rejected under 35 U.S.C. § 103(a) over Corel Corporation, “Corel Office for Java Whitepaper,” January 13, 1997 (“the Corel Whitepaper”) [A17246-65] in view of Furman, U.S. Patent 5,483,653 (“Furman”) [A30055-71].

Certain claims (4, 16, and 18 of the ‘011 patent, and 7 and 26 of the ‘375 patent) were rejected over the Corel Whitepaper in view of Furman and in further view of other references. [*See, e.g.*, A5247-49] Vistaprint did not provide separate arguments with respect to these claims to the Board, and thus the patentability of all claims on appeal rises or falls based on the rejection over the Corel Whitepaper in view of Furman.

B. The Prior Art

The basic disclosure in the prior art references relevant to this appeal—the Corel Whitepaper and Furman—are not in dispute.

The Corel Whitepaper describes a single-format system in which no translation is needed to print because the Corel system had a single format. [A17246-65] In a suite of software programs (Corel Office for Java), each

application is written in a common programming language (Java) that resides within the document. [A17246-47]

The Corel Whitepaper describes, as a positive feature, the fact that such a system eliminates the need for conversion or reformatting:

Because Corel Office for Java also uses Java to represent the document, users can create office **documents that are immediately publishable to their printer, the intranet, or the internet. No conversion or reformatting is required.** Any Corel Office for Java document can thus be shared across multiple platforms in any computing environment.

[A17246]

Thus, in the Corel Whitepaper, the fact that a document is “immediately publishable” with “no conversion or reformatting” required means that the Corel system is a homogeneous, single-format system that not only does not need translation for printing, and any document prepared in the system can be shared, without conversion or reformatting, across multiple platforms in any environment.

[*Id.*] In fact, if translation were introduced to the Corel system, it would frustrate the central purpose of having a single format that is easily usable across systems and render that system inoperable.

For its part, Furman describes a very specific translation operation that involves translating a job written in a first page description language (PDL) into a second PDL on a server. [A30064(2:30-59); A30066(5:13-38); A30067(8:31-50)]

In Furman's translation operation, a print job received from a client or workstation

in a first PDL file format is sent to a print server via a network operating system. If a network operating system uses a second PDL format different from the client system (i.e., if there is a heterogeneous system), the disclosed system converts the first PDL format to an output string based on the second format when a call to print the file is transmitted from the workstation to a print server. [A30068(9:27-10:2); A30066(5:13-38)] Thus, to the extent Furman is relevant, it addresses a problem that is advantageously avoided in the Corel Whitepaper.

C. The Reexamination Proceedings

In each of the reexamination proceedings in this appeal, Vistaprint requested *ex parte* reexamination of the patent. [A8539-41; A25739-42] A third party also submitted *ex parte* reexamination requests for each patent; the Patent Office granted and then merged the two requests for each patent, resulting in the two reexamination proceedings that are on appeal. [A8459-61; A25667-69]

In first office actions [A8440-58; A25615-63], the Examiner made the rejection that remained standing through the Board appeal, and, as will be seen below, that shows the incorrect assumptions about the prior art and flawed reasoning that warrants reversal:

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the server of *Corel Whitepaper* with a translation component for translating a client document to an appropriate format for a central printing apparatus as found in *Furman's* teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated: first, to

provide less restrictive printing functions and features with shared resource printing than simply local workstation printing (*Furman*: column 1, lines 13-25 and 26-46); second to provide flexibility in communicating (and thus formatting) for the central printing resource (*Furman*: column 2, lines 30-59); and third, by common elements of shared resource printing on a network and of common printing file formats combined in a known manner.

[A8447; A25622]

Vistaprint responded by noting that (1) the Corel Whitepaper does not disclose a “prepress software system” as claimed, and (2) that Furman does not cure that deficiency by its disclosure of translation from one PDL format to a second PDL on a server. [A8408-13]

In final actions, the Examiner renewed the same rejections, and found unpersuasive Vistaprint’s argument that the cited prior art does not disclose “prepress software.” [A5233-56] Vistaprint then reiterated its position that the Corel Whitepaper does not disclose a “prepress software system,” and argued further that (1) the Corel Office for Java documents disclosed in that reference cannot be used as input to Furman’s translation component, and (2) the combination with Furman fails because of Furman’s narrow disclosure of translation of one PDL format to another. [A5199-5218]

After advisory actions sustaining the rejections, Vistaprint appealed to the Board in each proceeding. [A5186; A22272]

In its opening arguments to the Board, Vistaprint attacked the propriety of the prior art combination. It argued that Furman does not disclose translating a Java-coded document as described in the Corel Whitepaper, and does not provide any guidance with respect to how to accomplish such a translation. Rather, Given Furman's disclosure of the very specific operation of translating PDL to PDL print jobs, a skilled artisan would have had no reason to combine the references to arrive at the claimed invention. [A276-300]

In his answer [A252-275], the Examiner renewed his arguments in support of the original rejections, and summed up his position as follows, again demonstrating flawed assumptions about the combination of the prior art:

The claim language merely requires "translating the electronic document from the internal format to a different prepress format file"; both cited references disclose printing; the combined references show it is obvious to translate on a server from PDL/printing format to another PDL/printing format; and the combined references show it is obvious to translate from one format to another generally.

[A272 (footnotes omitted)] But, of course, this statement never grappled with whether there would be any reason to add Furman to the Corel Whitepaper when the latter emphasized the benefits of not needing any translation.

In its Reply Brief to the Board, Vistaprint highlighted the flawed nature of the claim rejections. Vistaprint pointed out that an assumption at the core of the Examiner's argument was that, to print a document, it is necessary to translate the document. In other words, the Examiner assumed that because the Java-coded

document described in the Corel Whitepaper ultimately will be printed, the Java-coded document must first be translated. As Vistaprint pointed out, however, there is nothing in the Corel Whitepaper establishing that the Java-coded document must be translated before printing; to the contrary, the Corel Whitepaper describes a homogeneous system and emphasizes the benefit of not having to translate in such a system. And beyond that, Furman itself establishes that its documents do not necessarily need to be translated before printing. Furman describes a single-format system in which a client uses a format, e.g., a DOS format, to represent a print job, and communicates with a printer by way of a network operating system that uses the same format. [A242-245]

Vistaprint argued further that the Examiner's failure to demonstrate that the Corel Whitepaper's document requires translation before it can be printed necessarily means that the Examiner has failed to establish a *prima facie* case of obviousness. In other words, without a need for translation, a skilled artisan looking at the Corel Whitepaper would have had no reason to even look for Furman's PDL translator for the purpose of printing the document. [A243]

Vistaprint's reply also took issue with the Examiner's argument that Furman disclosed translation "in general." The correct reading of Furman is that it discloses something very specific—a translation operation that involves translating

a print job written in a first PDL format into a second PDL on a server, and Furman can properly be cited only for that narrow disclosure. [A244]

There is no transcript of the oral hearing before the Board in these appeals.² At the hearing, Vistaprint presented detailed evidence in the form of a slide presentation that thoroughly laid out the above arguments and the evidence in the record that supports them. [A179-A193]

D. The Board Decisions

The Board affirmed the Examiner's rejections. Its analysis in support of the Examiner's rejection regarding the issues raised in this Appeal, which repeats the errors underlying the Examiner's rejection and ignores Vistaprint's evidence, was as follows:

Hence, one of ordinary skill in the art would have understood that files to be printed are edited by a user (or client) and uploaded to a server computer system for processing for printing (Corel Whitepaper and/or Furman). One of ordinary skill in the art would also have understood that in the event that the file for printing was in a first format that was different from a second format for printing, it was known to translate the file from a first format to the second format during processing of the file for printing (Furman). Such a combination of references (Corel Whitepaper and Furman) would have entailed no more than combining known methodologies performing their known functions (i.e. uploading a file to a server for printing and translating the file (as disclosed by Furman) if the file as

² Vistaprint waived the transcript after the Board informed it that the court reporter had not shown up for the hearing and could not be located. At the Oral Hearing, Vistaprint provided the Board with a briefing book that set forth its detailed arguments. That briefing book was attached to Vistaprint's request for rehearing and is found in the Appendix at A179-A193. [See also A97-A98, n.3]

received is in a format unsuitable for printing) to achieve a predictable result (i.e. printing a document that a user desires to be printed). We agree with the Examiner that such a combination would have been obvious to one of ordinary skill in the art. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co.*, 550 U.S. at 416.

[A6-7; A17356-57] This reasoning again fails to appreciate that a file in the Corel Whitepaper system could not have been received in an improper format, because the Corel system was designed to avoid any such result.

Vistaprint requested rehearing of the decisions, and in brief decisions, the Board denied rehearing. In its denial of rehearing in the ‘011 patent proceeding, the Board stated that “Appellant appears to provide similar arguments as were previously provided in Appellant’s brief and addressed in the Decision,” and that it was “unpersuaded that Vistaprint’s arguments] demonstrated error in the obviousness rejection. [A160] In its similar decision in the ‘375 patent proceeding, in response to Vistaprint’s argument that the rejections incorrectly assume that the Corel Whitepaper document must be translated, the Board stated merely that that “We disagree with Appellant at least because none of the rejections described in the Opinion rely on Appellant’s alleged assumptions.” [A17281]

These appeals followed.

SUMMARY OF THE ARGUMENT

The appealed claims recite a document authoring tool, and a translation component for translating an electronic document that was prepared with the authoring tool in one format, into a different prepress format for printing. This Court should reverse the Board's decision affirming the Examiner's rejection of all claims on appeal based on a combination of the Corel Whitepaper and Furman.

There would have been no reason for a person of skill in the relevant art to combine the Corel Whitepaper with Furman to arrive at the claimed invention. The Corel Whitepaper describes a single-format system in which no translation is required for printing. Moreover, the Corel Whitepaper emphasizes the benefits of a system that is designed to **avoid** the need for translation in situations in which the system is used across multiple platforms for printing, whereas the Examiner incorrectly assumed that in order to print a document in the Corel Whitepaper, it would first need to be translated. Furman describes a specific translation operation that is designed to deal with situations (not described in or contemplated by the Corel Whitepaper) in which translation **is** required in order for printing to occur across multiple platforms. A person of skill in the art would have had no reason to combine a reference that does not require translation and is designed to avoid it, with a reference that describes translation. Indeed, the modification would take

away the intended purpose of the Corel system, of avoiding translation. For these reasons, the Board's decision should be reversed.

Vistaprint submitted detailed evidence regarding the prior art references in support of its arguments against the Examiner's rejection. In its decisions, the Board did not address Vistaprint's evidence. As a result, the Board merely perpetuated the Examiner's errors and thus failed to evaluate Vistaprint's evidence against the conclusory and erroneous bases for the rejections on appeal. Vistaprint's evidence should have been addressed and should have led to reversal of the Examiner's rejections.

The Board's conclusion of obviousness is unsupported by the evidence and wrong as a matter of law. In the face of Vistaprint's evidence and arguments, the Board failed to provide the *KSR*-required "articulated reasoning and rational underpinning" to support its conclusion of obviousness, and instead relied on conclusory statements about claim elements found in the prior art and its asserted combination of the references. In the correct and full analysis, the prior art combination does not make sense, is not rational, and cannot stand as a matter of law.

ARGUMENT

A. Standard of Review

Whether an invention would have obvious is a question of law based on underlying facts. *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000). This Court reviews the Board's ultimate conclusion of obviousness *de novo* and the Board's fact findings for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

A rejection under 35 U.S.C. § 103 requires a reasoned determination that the claimed "subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art" In *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), the Supreme Court provided the framework for analysis under Section 103: (1) determining what subject matter would have been obvious to one of ordinary skill in the art; and then (2) determining whether that subject matter is encompassed by a properly construed claim. The *KSR* Court noted that

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

KSR, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”)); *see also In re Lee*, 277 F. 3d 1338, 1345 (Fed. Cir. 2002) (explaining that “[t]he board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims”). The Office cannot make out a *prima facie* case of obviousness with a mere statement that modifications of the prior art to meet the claimed invention would have been within the ordinary skill in the art because the references teach that all aspects of the claimed invention were individually known in the art, without some objective and articulated *reason* to combine the teachings of the references. *See Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *see also KSR*, 550 U.S. at 418 (“it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way that the new invention does”); *Manual of Patent Examination Procedure*, chapter 2100, section 2143.01(IV).

B. The Corel Whitepaper Describes A Single-Format System That Does Not Need Translation, And There Would Have Been No Reason To Combine It With Furman, Which Describes Translation

Throughout these reexaminations, the premise behind the Examiner’s rejection was that it would have been obvious “to implement the server of the

Corel Whitepaper with a translation component for translating a client document to an appropriate format for a central printing apparatus as found in Furman's teaching." [A8447] As Vistaprint argued in its briefing and hearing before the Board, a key (and false) assumption at the core of the rejections is that in order to print a document, it is necessary to first translate the document. Specifically, the rejection assumes that because the Java-coded Corel Whitepaper document will be printed, the Java-coded document would first need to be translated, and thus a skilled artisan would have been motivated to "implement the server of Corel Whitepaper with a translation component." [*Id.*]

But the Corel Whitepaper describes a platform-independent suite of software programs (Corel Office for Java) that purposefully avoids translation. [A17246] In this system, each application is written in a common programming language (Java) and resides within the document. It is a **single-format** system that does not need translation to print, as the documentation makes clear:

Because the Corel Office for Java also uses Java to represent the document, users can create office documents that are immediately publishable to their printer, the intranet, or the internet. No conversion or reformatting is required. Any Corel Office for Java document can thus be shared across multiple platforms in any computing environment.

[*Id.*]

Thus, the whole thrust of the Corel Whitepaper is to a self-contained, single-format system that does not need translation, and indeed avoids the need for it,

including in situations in which the documents are shared across multiple platforms.

The Examiner and Board rely on Furman for its description of translation. As seen above, Furman does not describe translation generally, but rather describes a very specific translation operation that involves translating a job written in a first page description language (PDL) into a second PDL on a server. [A30064(2:30-59); A30066(5:13-38); A30067(8:31-50)] In Furman, a first PDL print job received from a client is sent to a printer that processes and prints PDL files in the first format. If a network operating system uses a second PDL format different from the client system, the disclosed system converts the first PDL format to an output based on the second format when a call to print the file is transmitted from the workstation to a print server. [A30068(9:27-10:2); A30066(5:13-38)]

It is noteworthy that Furman itself describes a single-format system (similar to the Corel Whitepaper) in which a client uses a format, e.g., DOS, to represent a print job and communicates with a printer, via a network operating system, that uses the same format, and in which translation is not needed. [A30068(9:27-40)] In contrast, the PDL-to-PDL translation operation that Furman also describes can be used in non-single-format systems in which translation is needed for PDL documents to be shared across multiple platforms. [A30068(9:27-40, 9:53-10:2); A30067(8:31-51)]

The claims on appeal recite a prepress software system that includes one or more authoring tools and a prepress translation component. The authoring tool allows a user to create an electronic document, display the electronic document in WYSIWYG form to the user, and allow a user to select and edit the document while at least a portion of the electronic document is displayed. The translation component then translates the document into a prepress format file. When that prepress file is used to produce a document, the document is consistent with a WYSIWYG image displayed to the user on the client computer by the authoring program, so that the user need only be concerned with authoring the electronic document and not with creating the prepress format file for production. [A125, 8:12-9:2]

There would have been no reason or motivation whatsoever for a person of skill in the art to add Furman's PDL translator to the system of the Corel Whitepaper to arrive at the claimed invention. In the Corel Whitepaper's single-format system, the documents it creates advantageously need "no conversion or reformatting" and can be shared across multiple platforms in any computing environment. Furman, in addition to describing a single-format system, describes a different system in which conversion or reformatting , i.e. translation" is required in order for documents to be shared across multiple platforms.

The printing of a Java-coded document of the Corel Whitepaper does not need translation in the first instance, and the Corel Whitepaper documents can be shared across multiple platforms. A person of ordinary skill would thus have had no reason to combine that reference with Furman's PDL translator that is described for situations in which documents need to be translated in order to be shared across multiple platforms.

Forcing a translation from Furman onto the no-translation system of the Corel Whitepaper would, in fact make the Corel system unsatisfactory for its intended and explicitly-stated purpose allowing users to "create office documents that are immediately publishable to their printer, the intranet, or the internet," with "[n]o conversion or reformatting [] required." Such a modification is exactly the type of case in which there is no reason to combine references as a matter of law. *See, e.g., In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984) (if proposed modification would make the prior art invention not perform its intended role, then there is no suggestion or motivation to make the proposed modification).

Indeed, as Vistaprint argued in its requests for reexamination, the Corel Whitepaper teaches away from translating document files. The system is designed to allow the sharing and printing of files across multiple platforms without the need for translation (the sharing of print jobs across multiple platforms would otherwise be the reason for needing translation in the absence of a single-format system like

that in the Corel Whitepaper). A prior art reference “teaches away” from a claimed invention “when a person of ordinary skill, upon reading a reference, would be discouraged from following the path set out in the reference or would be led in a direction divergent from the path that was taken by the applicant” *In re Gurley* 27 F.3d 551, 553 (Fed. Cir. 1994). Here, the Corel Whitepaper does just that by emphasizing the desirability of not having to perform any translation.

Vistaprint’s claims recite a multi-format system having an authoring tool that allows a user to create an electronic document, display it in WYSIWYG format, and edit the document without being concerned with preparing a prepress file for printing, and a translation component that then allows the file to be translated to a prepress file consistent with the WYSIWIG image that is displayed to the user. The Corel Whitepaper, which describes a single-format system that avoids the need for translation and touts this as a positive feature, would not have prompted the inventors to follow its single-format path, given the objectives and features of their invention.

Accordingly, neither the Examiner nor the Board has established *prima facie* obviousness based on the combination of these references, and the rejections should therefore be reversed.

C. Vistaprint's Unrebutted Evidence Supports Patentability Of The Rejected Claims

All of the evidence discussed above regarding the Corel Whitepaper and Furman, the subject matter of the references, the correct reading of the references and the lack of any basis for combining the references to arrive at the claimed invention, was presented to the Board in Vistaprint's briefing, at the oral hearing before the Board, and again in Vistaprint's requests for rehearing. [see A179-193; A197-200; A276-301; A242-45] This evidence was more than sufficient to rebut the Examiner's and Board's stated bases for the rejection, and indeed established in its totality that there would have been no basis for the combination. In its decisions on appeal in the two reexamination proceedings, the Board did not address these points at all.

Instead, the Board followed the Examiner's flawed reasoning. In the Decisions on Appeal, the Board simply stated that "One of ordinary skill in the art would also have understood that **in the event that the file for printing was in a first format that was different from a second format for printing**, it was known to translate the file from a first format to the second format during processing of the file for printing." [A6-7 (emphasis added)] This statement misapprehends or ignores the fact that there is no "event" in the Corel Whitepaper in which a file for printing would be in a first format that was different from a second format for

printing, and that there would thus be no reason to combine it with Furman in order to translate.

In its decisions on rehearing, the Board did not mention, let alone respond to, Vistaprint's arguments and evidence regarding the prior art, or dismissed the arguments and evidence summarily by stating that it disagreed with or didn't make the assumptions or errors that Vistaprint had pointed to with particularity.

When an applicant submits evidence in reply to a rejection, as Vistaprint did here, it is incumbent on the Examiner and Board to consider that evidence, evaluate it against the Examiner's evidence in support of the rejection, and reconsider the patentability of the claimed invention. The decision on patentability must be made based upon consideration of all the evidence. A decision to make or maintain a rejection in the face of all the evidence must show that it was based on the totality of the evidence. Facts established by rebuttal evidence must be evaluated along with the facts on which the conclusion of obviousness was reached, not against the conclusion itself. *In re Eli Lilly & Co.*, 902 F.2d 943, 945 (Fed. Cir. 1990).

Here, to the extent the Board evaluated rebuttal evidence at all, it did so only in a most perfunctory way, with reference to its conclusory statements about the prior art and not based on any facts provided either in Vistaprint's rebuttal evidence or in the Examiner's scant evidence. Had the Board addressed

Vistaprint’s evidence it would have recognized the fundamental flaw in the Examiner’s rejection: the Examiner’s contention that it would have been obvious to “implement the server of the Corel Whitepaper with a translation component . . . as found in Furman” to arrive at the claimed multi-format system would make no sense in light of Vistaprint’s evidence that the Corel Whitepaper describes a single-format system that is designed to avoid the very translation described in Furman.

The Board’s failure to address Vistaprint’s particularized evidence that rebutted the basis for the prior art rejection, and evaluate that evidence against the flawed basis of the Examiner’s rejection warrants reversal if the Board’s decisions.

D. The Board’s Conclusion Of Obviousness Is Wrong As A Matter Of Law And Should Be Reversed

As seen above, the Examiner failed to establish *prima facie* obviousness in his rejection of the claims on appeal over the Corel Whitepaper in view of Furman—a person of skill in the art would have had no reason to combine these references to arrive at the claimed invention for all of the reasons stated above. Furthermore, the Board failed to address evidence that Vistaprint submitted in support of its position. That evidence demonstrated the lack of any basis for combining the references.

Instead, in reaching its conclusion of obviousness, the Board relied on the *KSR* statement that “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable

results.” *KSR*, 550 U.S. at 416. [See A175-176] This rationale does not, however, withstand inquiry into the facts and descriptions in the references cited in the claim rejections, nor does it withstand scrutiny under the critical requirement in *KSR* that “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). The Board’s decisions wholly lack such “articulated reasoning with some rational underpinning.”

The Board repeated the Examiner’s descriptions of the Corel Whitepaper and Furman, about which there are no real disputes, and in the face of Vistaprint’s evidence and arguments to the contrary that it never addressed, continued to rely on the Examiner’s flawed claim rejection and the flawed premise behind it. Having identified what it deemed to be the claim elements in the individual prior art references, the Board did not go a step further than its conclusory statement that “the combination of familiar elements according to known methods is likely to be obvious” [A6] In doing so, the Board provided no answer to the evidence that Vistaprint cited to establish that a person of skill in the art would have had no reason to combine the references.

Had the Board undertaken to provide the case law-required articulated reasoning and rational underpinning to support its conclusion of obvious, the correct outcome would have been reversal of the Examiner's rejections. Any attempt to articulate a reasoned basis to support the rejection would have meaningfully addressed the following facts:

- The Corel Whitepaper is a single-format system that does not need any translation.
- The design of the Corel Whitepaper system specifies that the documents it produces can, advantageously, be printed without conversion or reformatting (i.e. translation) across multiple platforms in any computing environment.
- The PDL translation operation described in Furman is designed to translate documents that cannot be printed across multiple platforms without the need for translation.
- Furman itself describes a single-format system (as in the Corel Whitepaper) and contrasts such systems with those that need the PDL translation tool.
- A person of skill in the art would have no reason to combine a translation operation with a system that is designed not to need it.

Vistaprint pointed to all of the above facts in its briefing, and the Board responded with perfunctory analysis and conclusory statements. There is no articulable basis to support the combination of references cited in the appealed rejection, and indeed combination of references and the Examiner's rationale make no sense under a correct understanding of the prior art descriptions. The evidence of record thus does not support any rational underpinning that supports the rejection. A proper evaluation of the evidence, informed by a reasoned analysis of the proposed rejection, compels a conclusion that the rejection is illogical and unfounded, and cannot stand as a matter of law.

Accordingly, the claim rejection based on the Corel Whitepaper in view of Furman is erroneous as a matter of law and should be reversed.

CONCLUSION

For all of the foregoing reasons, Vistaprint respectfully requests that this Court reverse the claim rejections in each of the consolidated appeals.

September 10, 2013

Respectfully submitted,

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PROOF OF SERVICE

I certify that on September 10, 2013, the following BRIEF OF
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CERTIFICATE OF COMPLIANCE

The Brief for Vistaprint Technologies Ltd. complies with the type-volume limitation set forth in FRAP 32(a)(7)(B). The relevant portions of the Brief, including all footnotes, contain 6,725 words, as determined by Microsoft Word® 2010.

Dated: September 10, 2013

/s/ John A. Dragseth
John A. Dragseth

ADDENDUM

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VISTAPRINT TECHNOLOGIES LIMITED,
Appellant

Appeal 2012-002898
Reexamination Controls 90/009,295 & 90/009,315
Patent 6,247,011 B1
Technology Center 3900

Before STEPHEN C. SIU, ROBERT A. CLARKE, and
JOSIAH C. COCKS, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*

DECISION ON APPEAL

Patent owner appeals under 35 U.S.C. §§ 134(b) and 306 from a final rejection of claims 1-6 and 10-29. Claims 7-9 are cancelled. We have jurisdiction under 35 U.S.C. §§ 134(b) and 306. This case is related to Appeal 2012-002897 (Reexamination Controls 90/009,296 and 90/009,313).

We heard oral arguments at an oral hearing held on July 11, 2012.¹

¹ As discussed with Appellant's representative during the oral hearing, no transcript of the proceeding will be issued.

Appeal 2012-002898
Reexamination Controls 90/009,295 & 90/009,315
Patent 6,247,011 B1

STATEMENT OF THE CASE

This proceeding arose from a request for *ex parte* reexamination filed on November 14, 2008 (Control No. 90/009,295) and a request for *ex parte* reexamination filed February 11, 2009 (Control No. 90/009,315), both of United States Patent 6,247,011 B1 (the '011 Patent) issued to Steven T. Jecha and Winfield A. Mitchell on June 12, 2001. The USPTO granted and subsequently merged the two requests (See Decision Merging Proceedings, September 16, 2009). Presently, claims 1-6 and 10-29 stand rejected.

Patentee's invention relates to a computerized prepress system (Spec. col. 1, ll. 54-55). Claim 1 reads as follows:

1. A computerized prepress method comprising:
storing on a server computer a computerized prepress software system, wherein the prepress software system includes one or more document authoring tools and at least one prepress translation component, further wherein at least some of the authoring tools are downloadable to a client computer to be used to author an electronic document and the translation component is used to produce a prepress format file from an authored electronic document;
wherein at least one downloaded authoring tool is a program that executes in the web browser and has one or more functions that can be used to create an electronic document, display the electronic document in WYSIWYG form to the user, and allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

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the software system further configured to provide that the authoring tools create an electronic document using the client computer and that the client computer transfers the electronic document to the server computer in a form allowing the translation component executing on the server computer to create a prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need only be concerned with authoring the electronic document and not with the creating a prepress format file, and further so that the authored electronic document can be automatically processed by the server computer into a prepress format file;

wherein the client computer is one of a plurality of client computers each including a web browser capable of interacting with at least one Internet web site addressed by a uniform resource locator (URL) and the server computer is one of at least one server computers connected to the plurality of client computers over the Internet;

sending log-on information regarding a user from a client computer to the server computer over the Internet, wherein the user has profile data maintained by the server computer, and authenticating the user at the server computer;

downloading one or more of the authoring tools from the server computer to the client computer;

the user using at least one downloaded authoring tool at the client computer to create an electronic document;

sending the electronic document from the client computer to the server computer;

saving the electronic document in an internal format at the server computer; and

using the translation component, translating the electronic document from the internal format to a different suitable prepress format file usable to produce a corresponding document on a printing device.

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Patent 6,247,011 B1

(App. Br. 15-16, Claims Appendix).

The Examiner cites the following references:

Furman	US 5,483,653	Jan. 9, 1996
Farros	US 5,930,810	Jul. 27, 1999

Corel Corporation, "Corel Office for Java Whitepaper," Jan. 13, 1997
("Corel Whitepaper").

Corel Corporation, "Corel Office for Java Frequently Asked Questions,"
Jan. 13, 1997 ("Corel FAQ").

The Examiner rejects claims 1-3, 5, 6, 10-15, 17, and 19-29 under 35
U.S.C. § 103(a) as unpatentable over Corel Whitepaper and Furman; claims
4 and 18 under 35 U.S.C. § 103(a) as unpatentable over Corel Whitepaper,
Furman, and Farros; and claim 16 under 35 U.S.C. § 103(a) as unpatentable
over Corel Whitepaper, Furman, and Corel FAQ.

ISSUE

Did the Examiner err in rejecting claims 1-6 and 10-29?

PRINCIPLE OF LAW

"Section 103 forbids issuance of a patent when 'the differences
between the subject matter sought to be patented and the prior art are such
that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said

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subject matter pertains.”” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

ANALYSIS

Appellant argues that it would not have been obvious to one of ordinary skill in the art to have combined the Furman reference with Corel Whitepaper (see, e.g., App. Br. 5). We disagree with Appellant.

As the Examiner points out, Corel Whitepaper discloses a system of network printing of documents including downloading application functionality for document creation from a server to a client,² editing a document at the client, uploading the data/document to the server,³ and printing the document via the server.⁴ Like Corel Whitepaper, Furman also discloses a system of network printing of documents in which the document to be printed is received and printed in a “first format.”⁵ Furman also discloses that if the document received to be printed is in one format but

² Corel Whitepaper discloses that “Corel Office for Java is network-centric . . . applications . . . reside on the server and are seamlessly downloaded to the client as required” (p. ABC0038788).

³ Corel Whitepaper discloses that a user “can edit a [document] and then return it to the network server . . .” (p. ABC0038788, pagination refers to bates numbers found in the version on file with this Office rather than original page numbers).

⁴ Corel Whitepaper discloses that the “server side . . . takes care of . . . printing . . .” (p. ABC0038790).

⁵ Furman discloses “a known simplified network printing arrangement . . . using a first format to represent jobs . . . which network operating system also uses the first format” (col. 9, ll. 27-33).

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Reexamination Controls 90/009,295 & 90/009,315

Patent 6,247,011 B1

printing is to be accomplished in a second (different) format,⁶ the system translates the document from the first format to the second format for printing.⁷

Hence, one of ordinary skill in the art would have understood that files to be printed are edited by a user (or client) and uploaded to a server computer system for processing for printing (Corel Whitepaper and/or Furman). One of ordinary skill in the art would also have understood that in the event that the file for printing was in a first format that was different from a second format for printing, it was known to translate the file from the first format to the second format during processing of the file for printing (Furman). Such a combination of references (Corel Whitepaper and Furman) would have entailed no more than combining known methodologies performing their known functions (i.e., uploading a file to a server for printing and translating the file (as disclosed by Furman) if the file as received is in a format unsuitable for printing) to achieve a predictable result (i.e., printing a document that a user desires to be printed). We agree with the Examiner that such a combination would have been obvious to one of ordinary skill in the art. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield

⁶ Furman discloses an embodiment in which “the client 14 uses a second format, which differs from the first format, and the workstation is coupled with the printer by way of a print server . . .” (col. 9, ll. 36-38).

⁷ Furman discloses “translation of the job file 60 from a first [format] . . . into a second [format]” (col. 8, ll. 43-44) for printing of the job file.

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predictable results.” *KSR Int’l Co.*, 550 U.S. at 416.

Appellant argues that “Corel Whitepaper . . . lacked print capability altogether” (App. Br. 8) so, according to Appellant, one of ordinary skill in the art would not have combined Corel Whitepaper (a reference that presumably lacked print capability) with Furman (a reference the included print capability). We are not persuaded by Appellant’s argument at least because, contrary to Appellant’s assertion, Corel Whitepaper discloses print capability (i.e., “important features including . . . printing” (p. ABC0038790)).

Appellant also argues that Furman only discloses “translating a print job from one PDL format to a different PDL format” (App. Br. 8) and therefore “cannot print the Java-coded document described in the Corel Whitepaper” (App. Br. 8). However, “the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). In the present case, as described above, both Corel Whitepaper and Furman disclose a system in which a file in one format is uploaded to a server and printed in the same format while Furman further discloses that if the file is to be printed using a second and different format from the first format that translation of the file may be performed. Given Furman’s explicit teaching that translation of a file from one format to another format for printing was

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known and practiced in the art, it would have been obvious to one of ordinary skill in the art to have done so in the event that such translation was needed.

Appellant also argues that Corel Whitepaper fails to disclose “a ‘prepress software system’” or creating “documents in a prepress format” (App. Br. 9) because, according to Appellant, Corel Whitepaper fails to disclose “such pre-printing processing tasks as high resolution layout, image preparation, trapping, and color separation” (App. Br. 10, citing Declaration Under Rule 1.132 of Kevin P. Keane, dated December 16, 2009). We note, however, that Appellant has not indicated that the Specification indicates that “prepress” requires any specific function much less “high resolution layout, image preparation, trapping, and color separation.” Rather, the Specification states that “prepress involves the preparation of all the electronic files that will be utilized to create a publication printed with paper and ink” (col. 1, ll. 16-18). Since Appellant has not sufficiently demonstrated that Corel Whitepaper fails to disclose preparation of files to be utilized to create printed materials such as embedding a spreadsheet into a word processor file for printing (Ans. 5) (i.e., “prepress” processes, according to the Specification), we are not persuaded by Appellant’s argument that Corel Whitepaper fails to disclose a “prepress software system.” Even assuming that a “prepress software system” or creating “documents in a prepress format” require translation of a created file into a second file that is printed, as argued by Appellant, Furman provides a

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teaching to process a first created file into a second format for printing as discussed above. Thus, even if we were to accept the narrower construction argued by Appellant, we are not persuaded that Corel Whitepaper and Furman fail to adequately teach a “prepress software system.”

Claims 14, 21, and 27 recite similar features and Appellant does not provide additional arguments in support of those claims or of claims 2-6, 10-13, 15-20, 22-26, 28, or 29. Appellant also does not provide additional arguments with respect to Farros or Corel FAQ.

CONCLUSION

We conclude that the Examiner did not err in rejecting claims 1-3, 5, 6, 10-15, 17, and 19-29 as obvious over Corel Whitepaper and Furman; claims 4 and 18 as obvious over Corel Whitepaper, Furman and Farros; and claim 16 as obvious over Corel Whitepaper, Furman and Corel FAQ.

DECISION

The decision of the Examiner to reject claims 1-6 and 10-29 is affirmed.

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). See 37 C.F.R. § 41.50(f).

Appeal 2012-002898
Reexamination Controls 90/009,295 & 90/009,315
Patent 6,247,011 B1

AFFIRMED

ack

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VISTAPRINT TECHNOLOGIES LIMITED,
Appellant

Appeal 2012-002897
Reexamination Controls 90/009,296 & 90/009,313
Patent 6,631,375 B2
Technology Center 3900

Before STEPHEN C. SIU, ROBERT A. CLARKE, and
JOSIAH C. COCKS, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*

DECISION ON APPEAL

Patent owner appeals under 35 U.S.C. §§ 134(b) and 306 from a final rejection of claims 1-9 and 13-44. Claims 10-12 are cancelled. We have jurisdiction under 35 U.S.C. §§ 134(b) and 306. This case is related to Appeal 2012-002898 (Reexamination Controls 90/009,295 and 90/009,315).

We heard oral arguments at an oral hearing held on July 11, 2012.¹

¹ As discussed with Appellant's representative during the oral hearing, no transcript of the proceeding will be issued.

Appeal 2012-002897
Reexamination Controls 90/009,296 & 90/009,313
Patent 6,631,375 B2

STATEMENT OF THE CASE

This proceeding arose from a request for ex parte reexamination filed on November 14, 2008 (Control No. 90/009,296) and a request for ex parte reexamination filed December 22, 2008 (Control No. 90/009,313), both of United States Patent 6,631,375 B2 (the '375 Patent) issued to Steven T. Jecha and Winfield A. Mitchell on October 7, 2003. The USPTO granted and subsequently merged the two requests (See Decision Merging Proceedings, September 16, 2009). Presently, claims 1-9 and 13-44 stand rejected.

Patentee's invention relates to a computerized prepress system (Spec, col. 1, ll. 54-55). Claim 1 reads as follows:

1. A computerized prepress method comprising:
storing on a server computer system a computerized prepress software system, wherein the prepress software system includes a document authoring program downloadable from the server to a client computer, the program having one or more authoring tools used to create an electronic document;
wherein the downloaded program executes in a web browser of the client computer and displays the electronic document in WYSIWYG form to the user of the client computer, and at least one of the authoring tools has one or more functions that allows a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

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Reexamination Controls 90/009,296 & 90/009,313

Patent 6,631,375 B2

the software system further configured to provide that at least one of the authoring tools is adapted to create an electronic document using the client computer, and that the electronic document is uploaded to the server computer system in a form allowing a translation component to create a prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need not be concerned with creating a prepress format file, and further so that the authored electronic document can be processed into a prepress format file;

downloading the authoring program from the server computer system to the client computer;

the user using at least one authoring tool of the downloaded program at the client computer to create an electronic document;

uploading the electronic document to the server computer system.

(App. Br. 14-15, Claims Appendix).

The Examiner cites the following references:

Furman	US 5,483,653	Jan. 9, 1996
Farros	US 5,930,810	Jul. 27, 1999

Corel Corporation, "Corel Office for Java Whitepaper," Jan. 13, 1997 ("Corel Whitepaper").

Corel Corporation, "Corel Office for Java Frequently Asked Questions," Jan. 13, 1997 ("Corel FAQ").

The Examiner rejects claims 1-6, 8, 9, 13-25, and 27-44 under 35 U.S.C. § 103(a) as unpatentable over Corel Whitepaper and Furman; claim 7

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Reexamination Controls 90/009,296 & 90/009,313

Patent 6,631,375 B2

under 35 U.S.C. § 103(a) as unpatentable over Corel Whitepaper, Furman, and Farros; and claim 26 under 35 U.S.C. § 103(a) as unpatentable over Corel Whitepaper, Furman, and Corel FAQ.

ISSUE

Did the Examiner err in rejecting claims 1-9 and 13-44?

PRINCIPLE OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

ANALYSIS

Appellant argues that it would not have been obvious to one of ordinary skill in the art to have combined the Furman reference with Corel Whitepaper (see, e.g., App. Br. 8). We disagree with Appellant.

As the Examiner points out, Corel Whitepaper discloses a system of network printing of documents including downloading application functionality for document creation from a server to a client,² editing a

² Corel Whitepaper discloses that “Corel Office for Java is network-centric . . . applications . . . reside on the server and are seamlessly downloaded to the

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document at the client, uploading the data/document to the server,³ and printing the document via the server.⁴ Like Corel Whitepaper, Furman also discloses a system of network printing of documents in which the document to be printed is received and printed in a “first format.”⁵ Furman also discloses that if the document received to be printed is in one format but printing is to be accomplished in a second (different) format,⁶ the system translates the document from the first format to the second format for printing.⁷

Hence, one of ordinary skill in the art would have understood that files to be printed are edited by a user (or client) and uploaded to a server computer system for processing for printing (Corel Whitepaper and/or Furman). One of ordinary skill in the art would also have understood that in the event that the file for printing was in a first format that was different

client as required” (p. ABC0038788).

³ Corel Whitepaper discloses that a user “can edit a [document] and then return it to the network server . . .” (p. ABC0038788, pagination refers to bates numbers found in the version on file with this Office rather than original page numbers).

⁴ Corel Whitepaper discloses that the “server side . . . takes care of . . . printing . . .” (p. ABC0038790).

⁵ Furman discloses “a known simplified network printing arrangement . . . using a first format to represent jobs . . . which network operating system also uses the first format” (col. 9, ll. 27-33).

⁶ Furman discloses an embodiment in which “the client 14 uses a second format, which differs from the first format, and the workstation is coupled with the printer by way of a print server . . .” (col. 9, ll. 36-38).

⁷ Furman discloses “translation of the job file 60 from a first [format] . . . into a second [format]” (col. 8, ll. 43-44) for printing of the job file.

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from a second format for printing, it was known to translate the file from the first format to the second format during processing of the file for printing (Furman). Such a combination of references (Corel Whitepaper and Furman) would have entailed no more than combining known methodologies performing their known functions (i.e., uploading a file to a server for printing and translating the file (as disclosed by Furman) if the file as received is in a format unsuitable for printing) to achieve a predictable result (i.e., printing a document that a user desires to be printed). We agree with the Examiner that such a combination would have been obvious to one of ordinary skill in the art. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co.*, 550 U.S. at 416.

Appellant argues that "Corel Whitepaper . . . lacked print capability altogether" (App. Br. 7) so, according to Appellant, one of ordinary skill in the art would not have combined Corel Whitepaper (a reference that presumably lacked print capability) with Furman (a reference that included print capability). We are not persuaded by Appellant's argument at least because, contrary to Appellant's assertion, Corel Whitepaper discloses print capability (i.e., "important features including . . . printing" (p. ABC0038790)).

Appellant also argues that Furman only discloses "translating a print job from one PDL format to a different PDL format" (App. Br. 8) and therefore "cannot print the Java-coded document described in the Corel

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Whitepaper” (App. Br. 8). However, “the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). In the present case, as described above, both Corel Whitepaper and Furman disclose a system in which a file in one format is uploaded to a server and printed in the same format while Furman further discloses that if the file is to be printed using a second and different format from the first format that translation of the file may be performed. Given Furman’s explicit teaching that translation of a file from one format to another format for printing was known and practiced in the art, it would have been obvious to one of ordinary skill in the art to have done so in the event that such translation was needed.

Appellant also argues that Corel Whitepaper fails to disclose “a ‘prepress software system’” or creating “documents in a prepress format” (App. Br. 10) because, according to Appellant, Corel Whitepaper fails to disclose “such pre-printing processing tasks as high resolution layout, image preparation, trapping, and color separation” (App. Br. 10, citing Declaration Under Rule 1.132 of Kevin P. Keane, dated December 16, 2009). We note, however, that Appellant has not indicated that the Specification indicates that “prepress” requires any specific function much less “high resolution layout, image preparation, trapping, and color separation.” Rather, the

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Specification states that “prepress involves the preparation of all the electronic files that will be utilized to create a publication printed with paper and ink” (col. 1, ll. 22-24). Since Appellant has not sufficiently demonstrated that Corel Whitepaper fails to disclose preparation of files to be utilized to create printed materials such as embedding a spreadsheet into a word processor file for printing (Ans. 5) (i.e., “prepress” processes, according to the Specification), we are not persuaded by Appellant’s argument that Corel Whitepaper fails to disclose a “prepress software system.” Even assuming that a “prepress software system” or creating “documents in a prepress format” require translation of a created file into a second file that is printed, as argued by Appellant, Furman provides a teaching to process a first created file into a second format for printing as discussed above. Thus, even if we were to accept the narrower construction argued by Appellant, we are not persuaded that Corel Whitepaper and Furman fail to adequately teach a “prepress software system.”

Claims 18, 34, 40, 43, and 44 recite similar features and Appellant does not provide additional arguments in support of those claims or of claims 2-17, 19-33, 35-39, 41, or 42. Appellant also does not provide additional arguments with respect to Farros or Corel FAQ.

CONCLUSION

We conclude that the Examiner did not err in rejecting claims 1-6, 8, 9, 13-25, and 27-44 as obvious over Corel Whitepaper and Furman; claim 7

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as obvious over Corel Whitepaper, Furman and Farros; and claim 26 as
obvious over Corel Whitepaper, Furman and Corel FAQ.

DECISION

The decision of the Examiner to reject claims 1-9 and 13-44 is
affirmed.

Requests for extensions of time in this *ex parte* reexamination
proceeding are governed by 37 C.F.R. § 1.550(c). See 37 C.F.R. § 41.50(f).

AFFIRMED

ack

cc:

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(12) **United States Patent**
Jecha et al.

(10) **Patent No.: US 6,247,011 B1**
(45) **Date of Patent: *Jun. 12, 2001**

(54) **COMPUTERIZED PREPRESS AUTHORIZING FOR DOCUMENT CREATION**

(75) Inventors: **Steven Jecha; Winfield A. Mitchell,**
both of Minneapolis, MN (US)

(73) Assignee: **Digital-Net, Inc.,** St. Paul, MN (US)

(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **08/982,438**

(22) Filed: **Dec. 2, 1997**

(51) **Int. Cl.⁷** **G06F 17/30**

(52) **U.S. Cl.** **707/9; 707/100; 707/517; 707/530**

(58) **Field of Search** 707/501, 506, 707/530, 9, 517; 395/200.33, 114, 200.54; 364/479.03; 345/150, 335, 357

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,508,718	*	4/1996	Haikin	345/150
5,600,563	*	2/1997	Cannon et al.	364/468.24
5,751,590	*	5/1998	Cannon et al.	364/479.03
5,790,790	*	4/1999	Smith et al.	709/206
5,793,966	*	8/1998	Amstein et al.	395/200.33
5,796,952	*	8/1998	Davis et al.	395/200.54
5,819,014	*	10/1998	Cyr et al.	395/114
5,819,271	*	10/1998	Mahoney et al.	707/9
5,825,986	*	10/1998	Ferguson	358/1.9
5,845,302	*	12/1998	Cayman, Jr. et al.	707/517
5,848,413	*	12/1998	Wolff	707/10

5,870,089	*	2/1999	Fabbio et al.	345/335
5,870,552	*	10/1999	Dozier et al.	707/501
5,877,766	*	3/1999	Bates et al.	345/357
5,880,740	*	3/1999	Halliday et al.	345/435
5,884,014	*	3/1999	Huttenlocher et al.	395/114
5,892,909	*	4/1999	Grasso et al.	395/200.31
5,963,641	*	10/1999	Crandall et al.	380/2
5,995,723	*	11/1999	Sperry et al.	358/1.15
6,020,894	*	2/2000	Silverbrook	345/433

FOREIGN PATENT DOCUMENTS

0475734	3/1992	(EP) .
0674277	9/1995	(EP) .
0814425	12/1997	(EP) .
WO99/04988	2/1998	(WO) .

OTHER PUBLICATIONS

Drennan, Bill, "Variable-data printing comes of age: capabilities & market demand converge." Seybold Report on Publishing Systems, v27, n2, p3 (22), pp. 10-12, 14, 16-19, and 21-26, Sep. 15, 1997.*

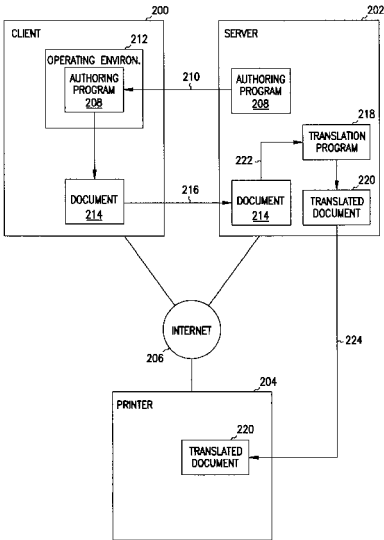
(List continued on next page.)

Primary Examiner—Hosain T. Alam
Assistant Examiner—Ella Colbert
(74) *Attorney, Agent, or Firm*—Schwegman, Lundberg, Woessner & Kluth, P.A.

(57) **ABSTRACT**

Computerized prepress is disclosed. In one embodiment, a computerized prepress system includes three components: a server, a client and a printer. The server has stored thereon an authoring program to create a document, and a translation program to translate the document to a suitable prepress format. The client downloads the authoring program from the server to create the document, and then uploads the document to the server for translation to the suitable prepress format. The printer receives the document as translated to the suitable prepress format from the server.

29 Claims, 16 Drawing Sheets



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OTHER PUBLICATIONS

Seybold Report on Publishing Systems, "A closer look at the new Indigo E-Print 1000+: 77 engineering enhancements," Seybold Publishing System, v26, n6, p38(1), pp. 66 and 67, Nov. 1996.*

Print outs from Banc JEX Insty Prints online printing catalog,, on-line on Internet in 1996-97.

Print outs from BizCards Online business card catalog, on-line Internet in May 1997.

Print outs from www.iprint.com web site. It is Applicants' belief that this web site was available sometime in early 1997, prior to the Applicants' filing date. This is not admitted as a fact, however, as this has not been independently confirmed by Applicants.

Grayson, S., et al., "Adobe Print Publishing Guide", *Adobe System Incorporated*, Entire Manual, (1993-1995).

* cited by examiner

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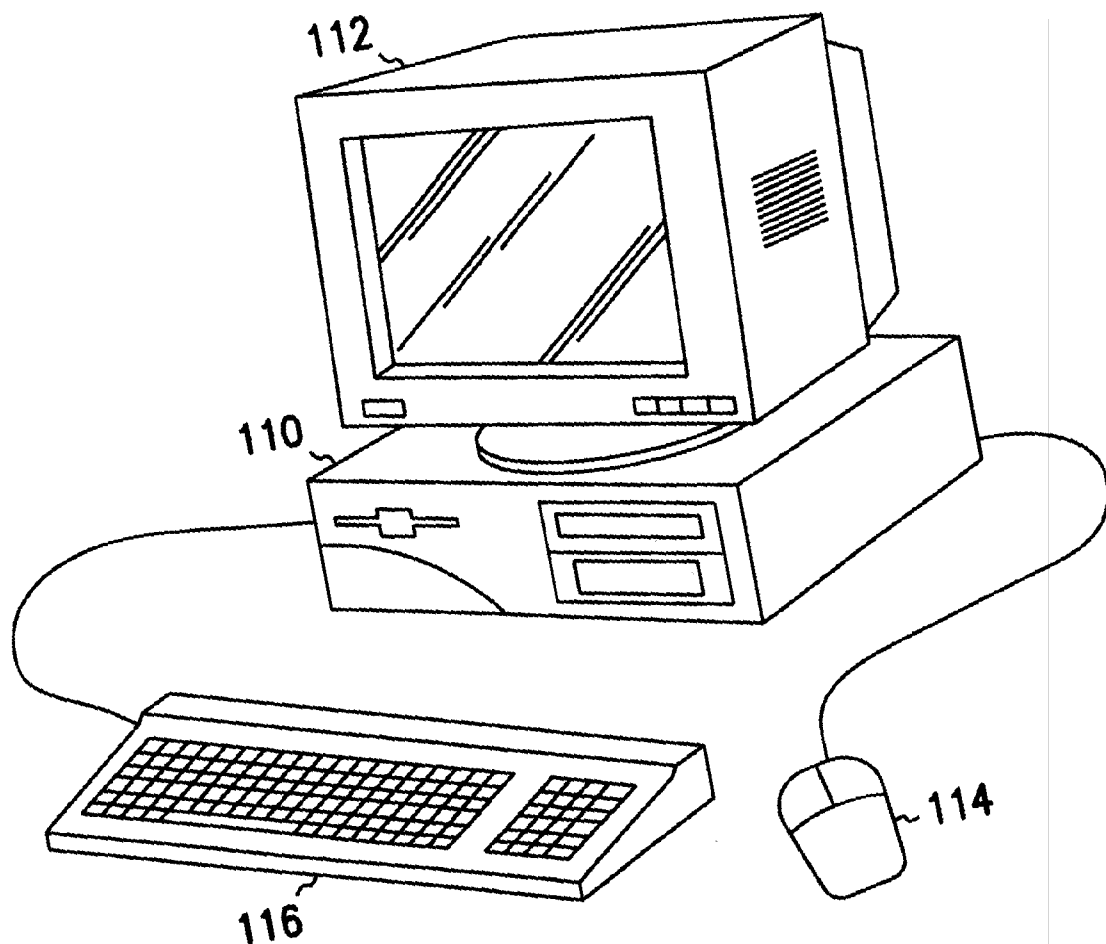


FIG. 1

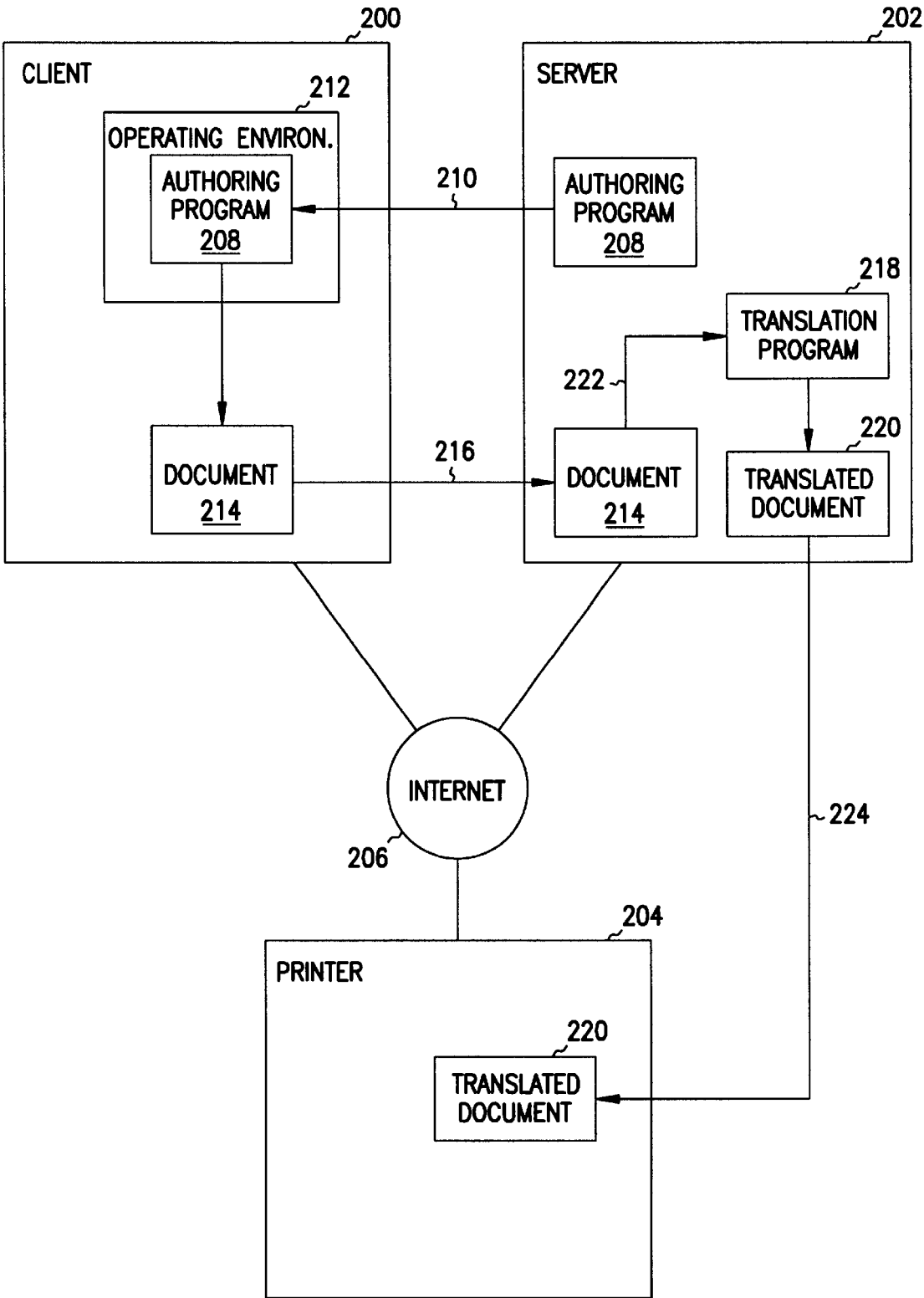


FIG. 2

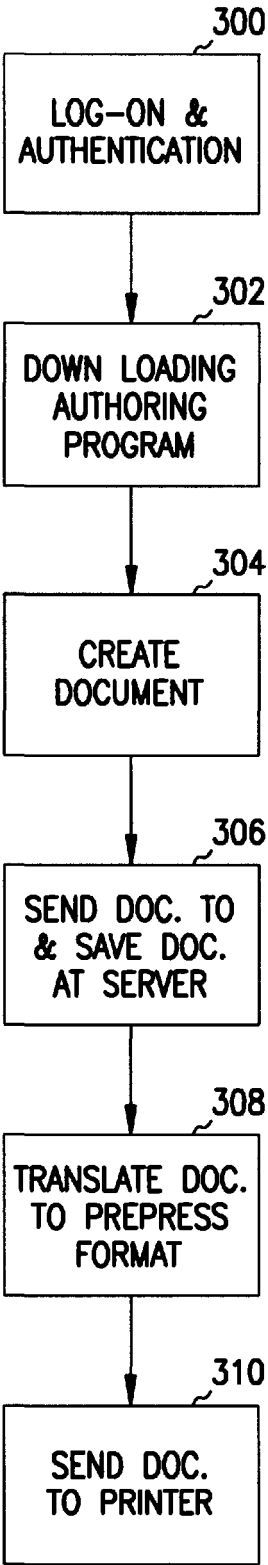


FIG. 3

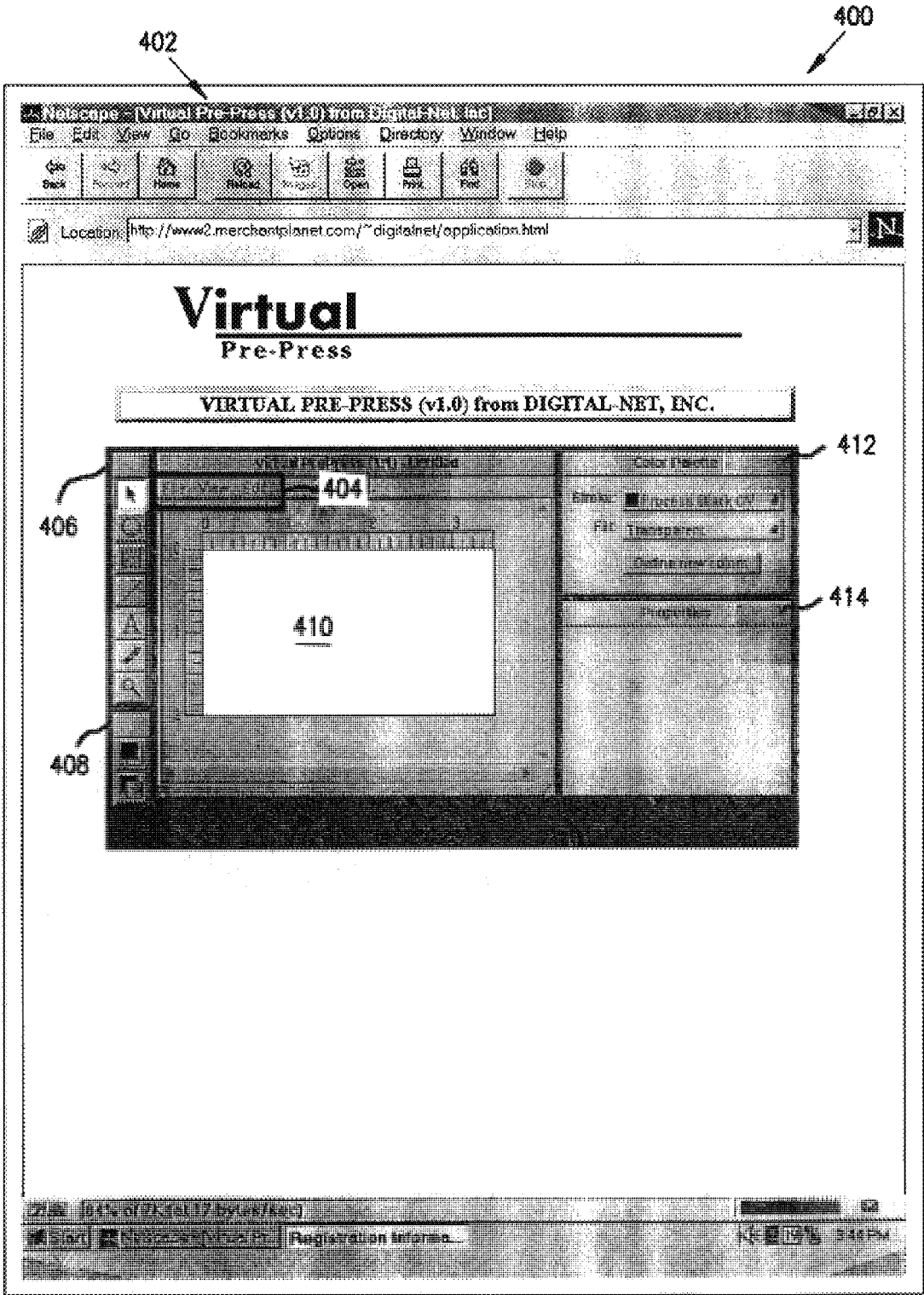


FIG. 4a

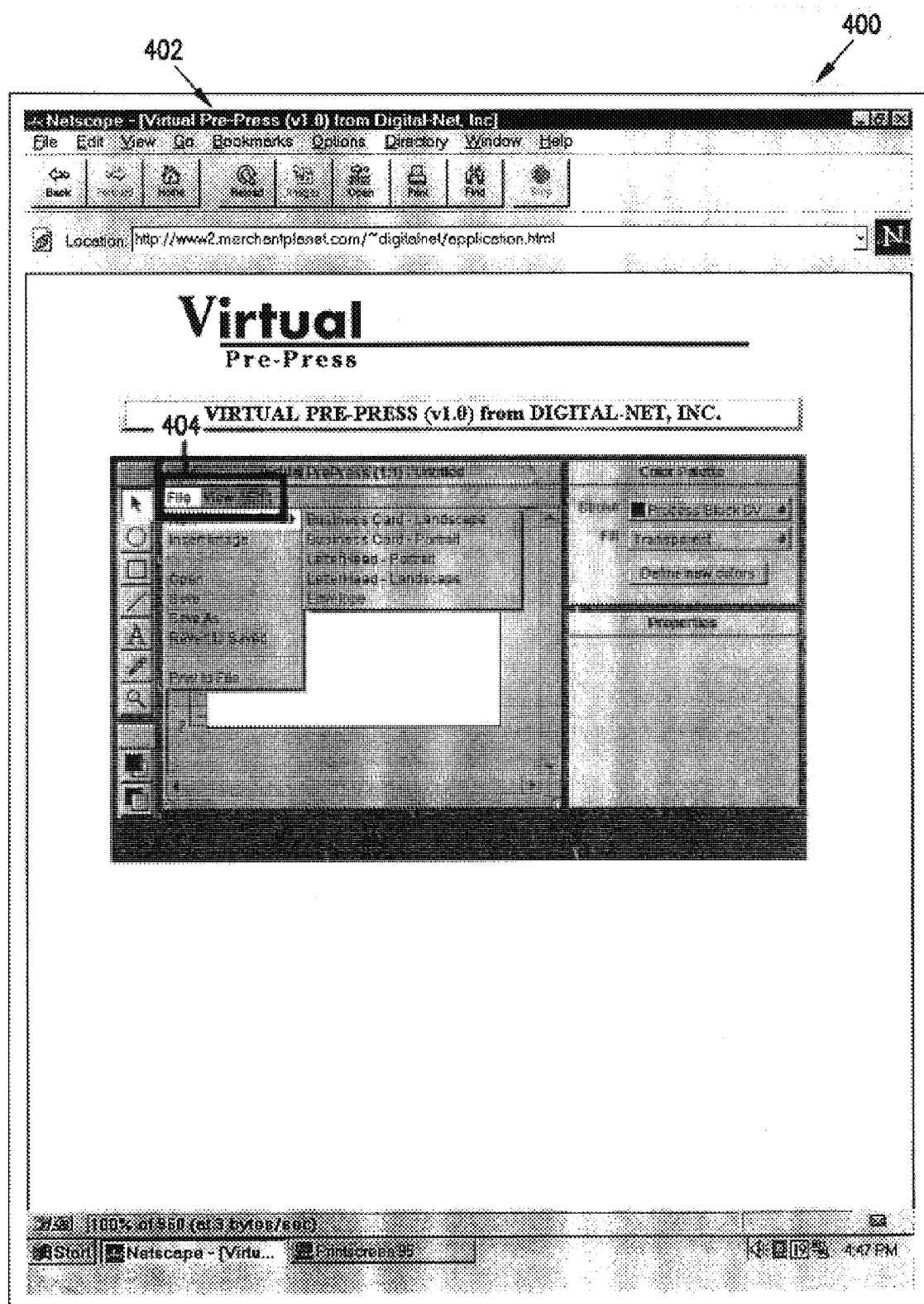


FIG. 4b

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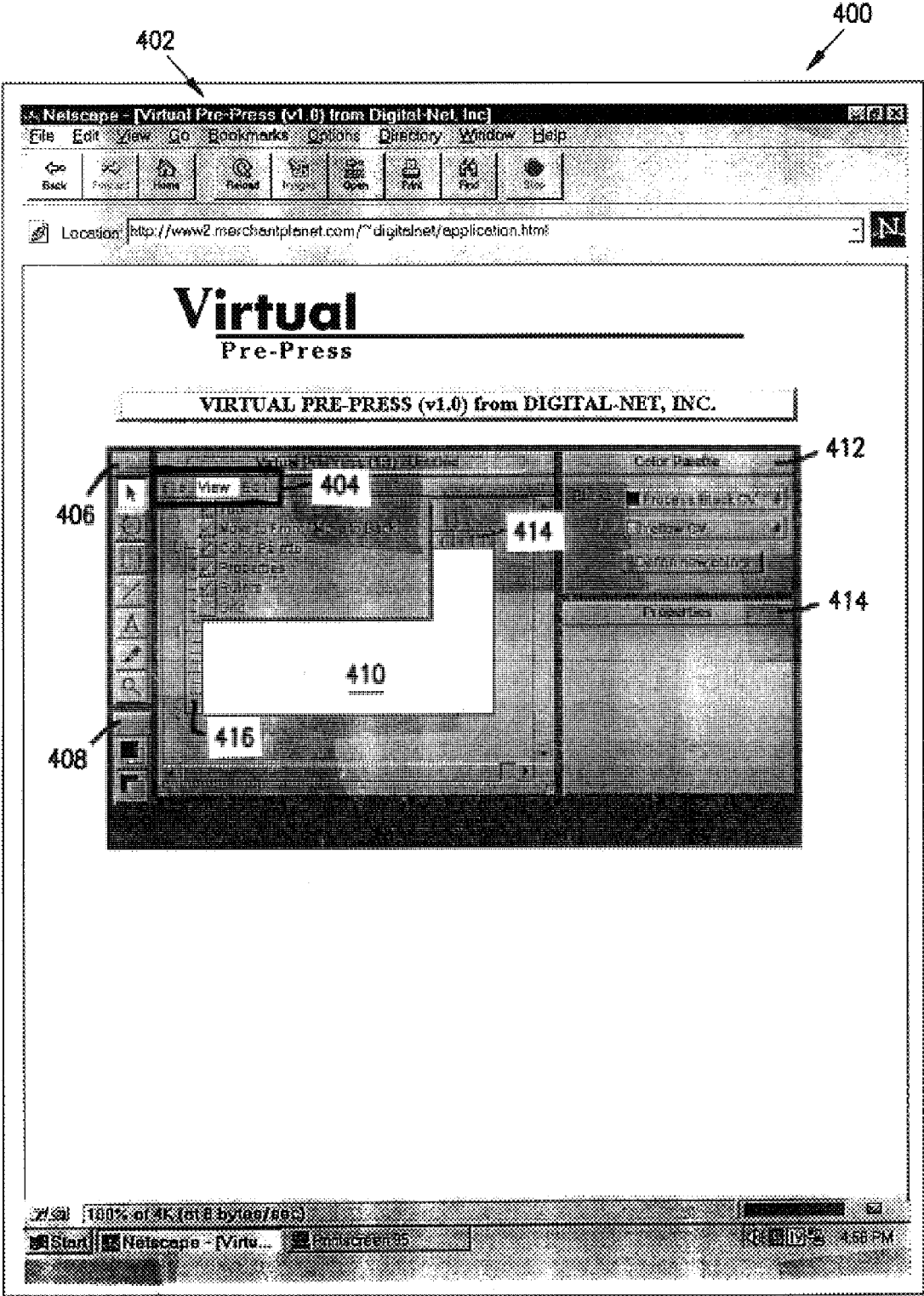


FIG. 4c

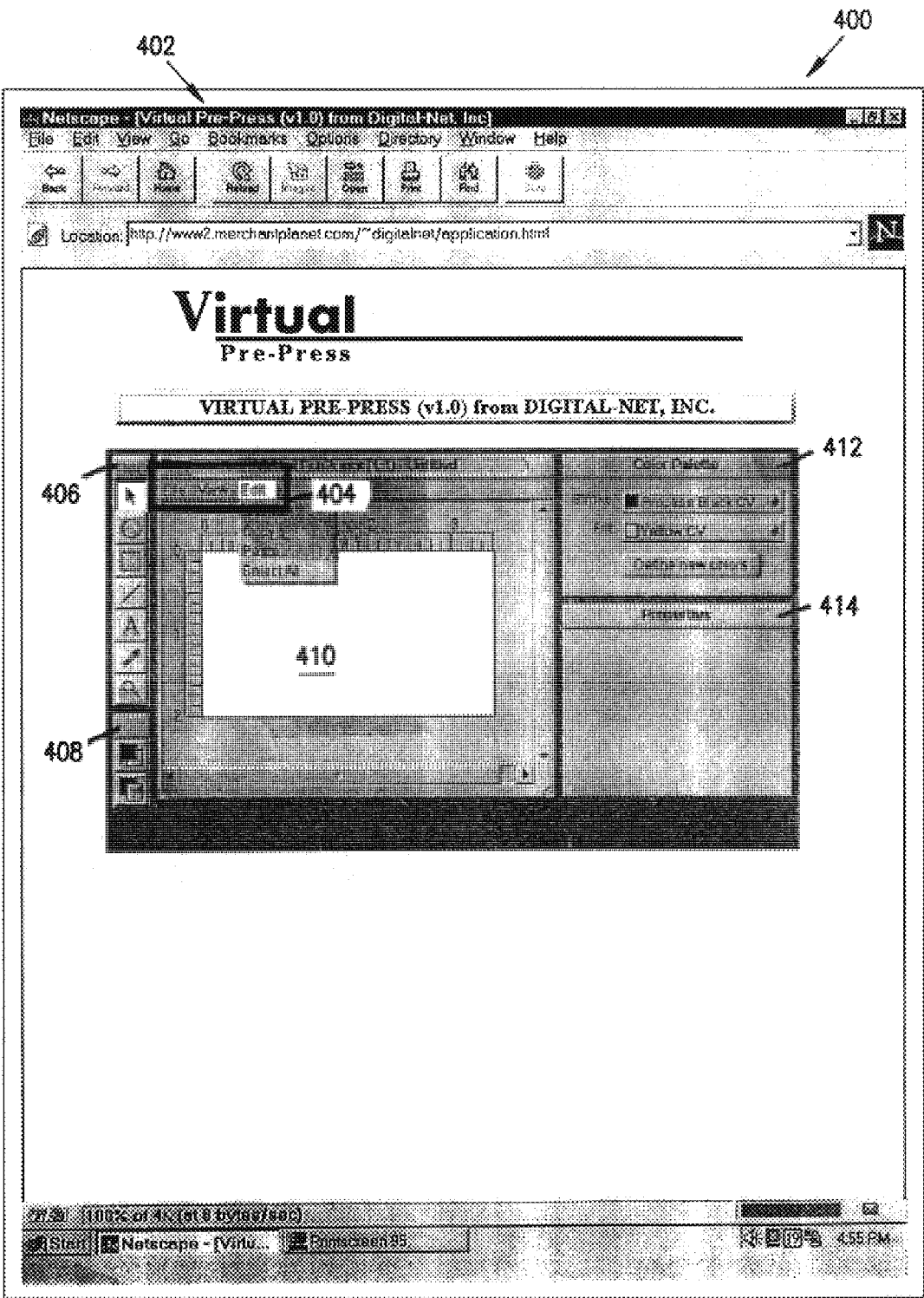


FIG. 4d

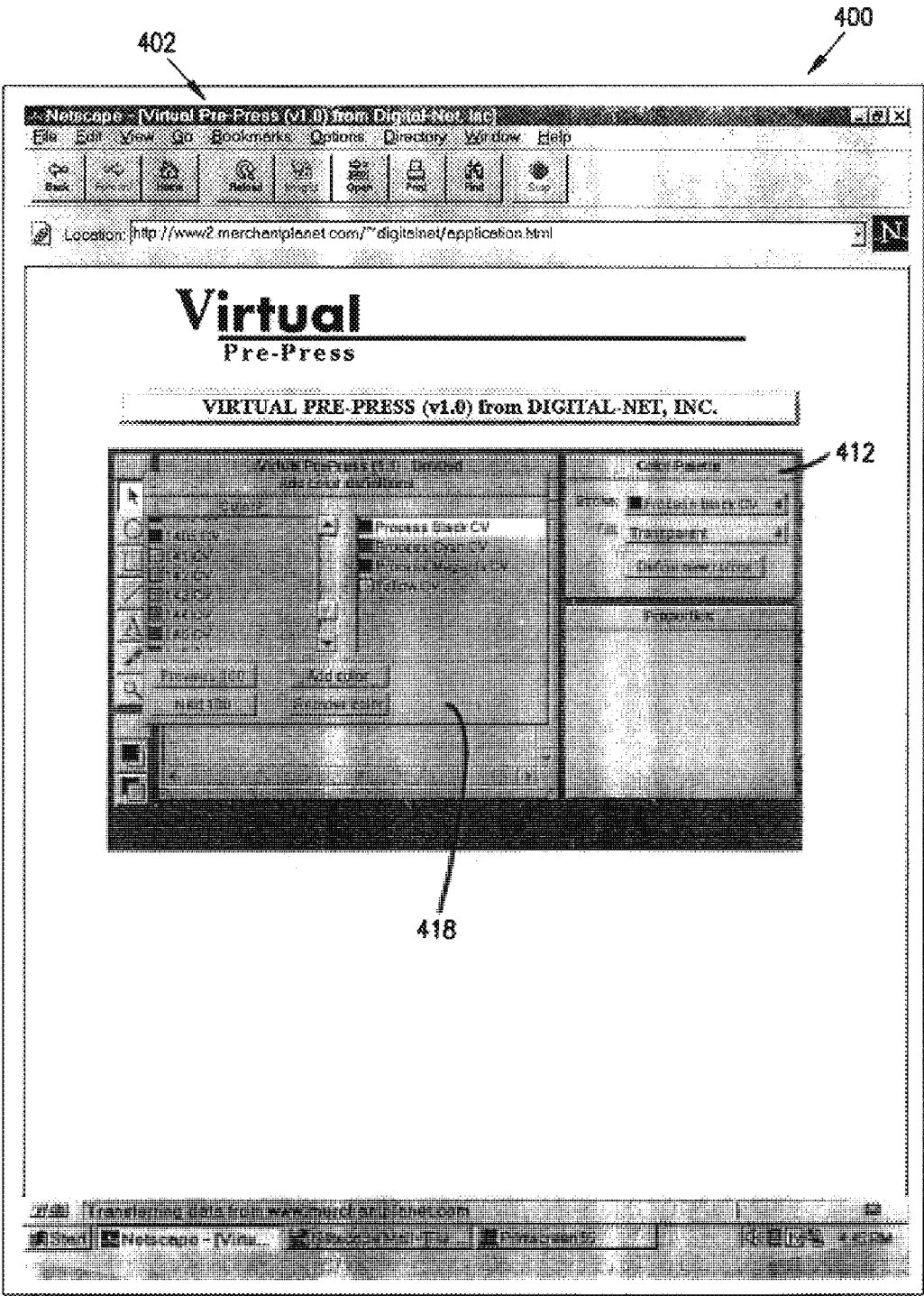


FIG. 4e

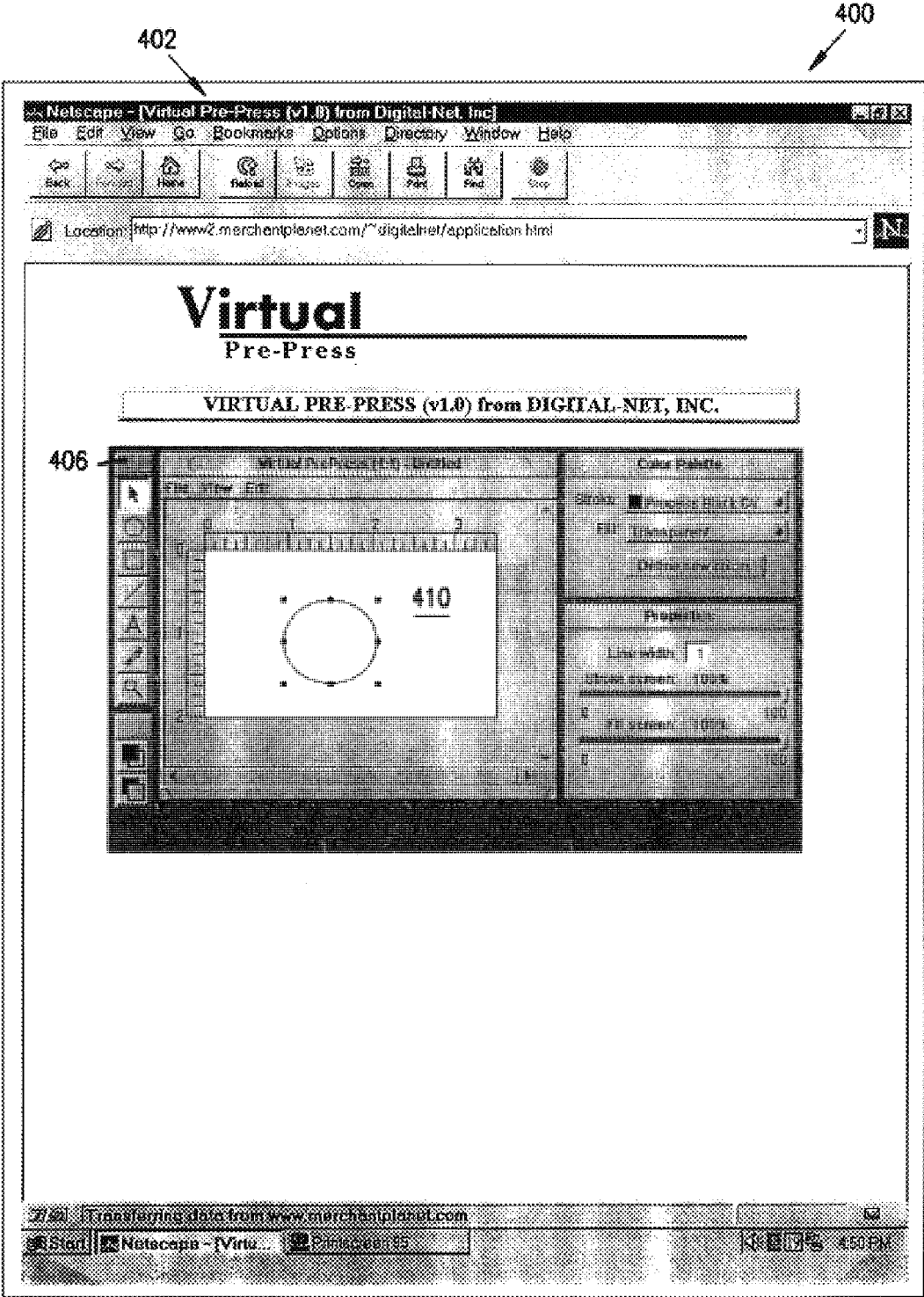


FIG. 4f

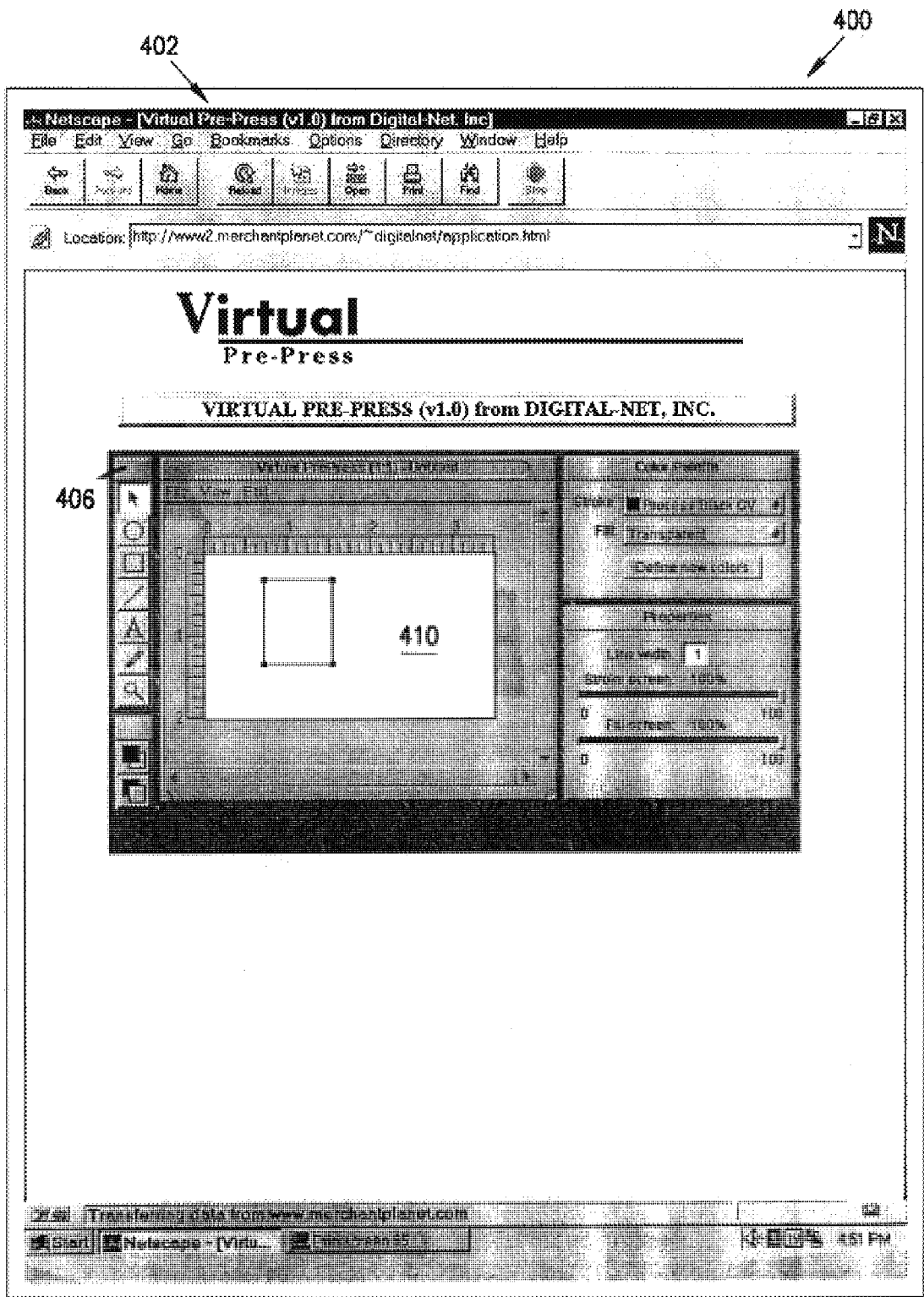


FIG. 4g

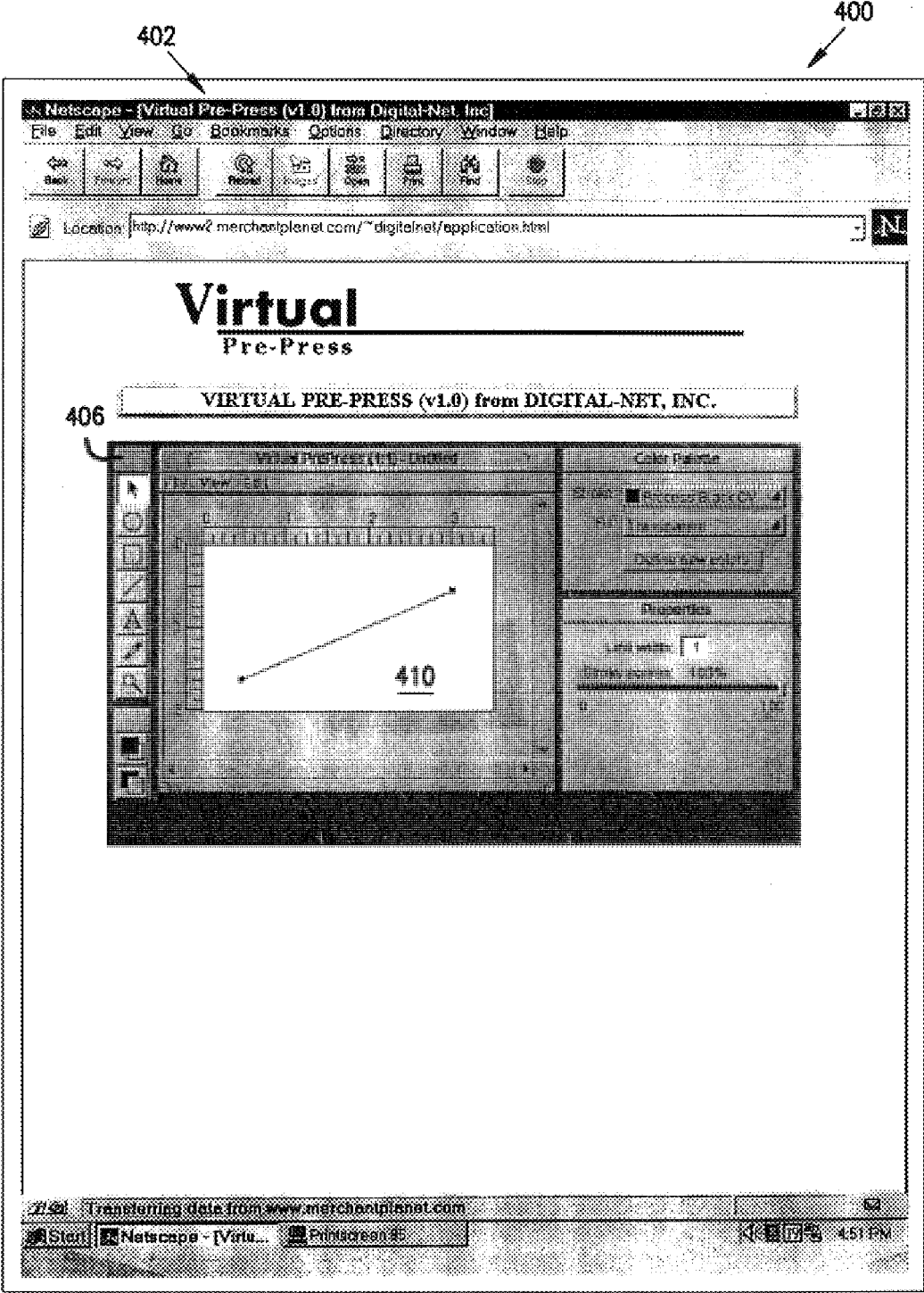


FIG. 4h

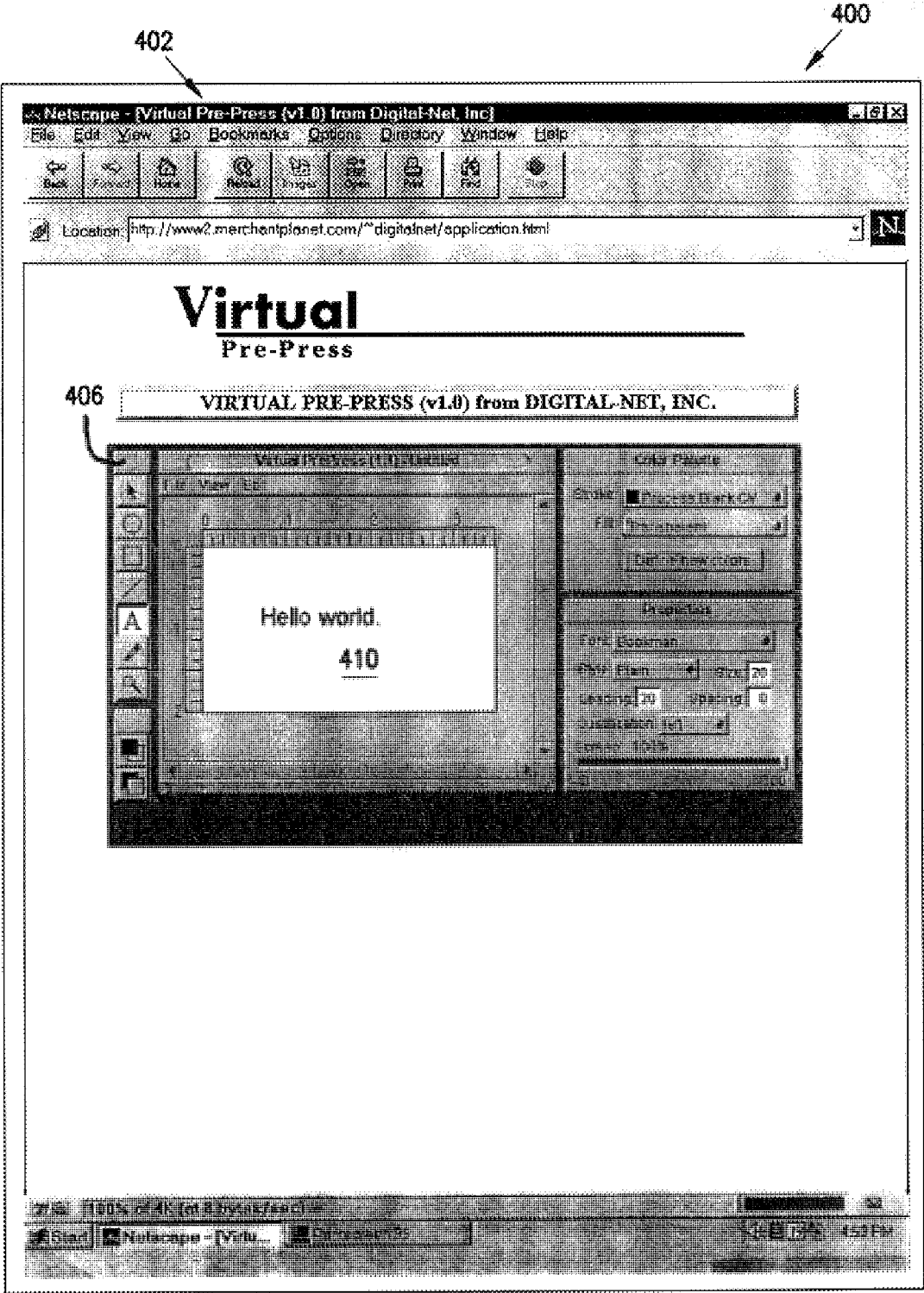
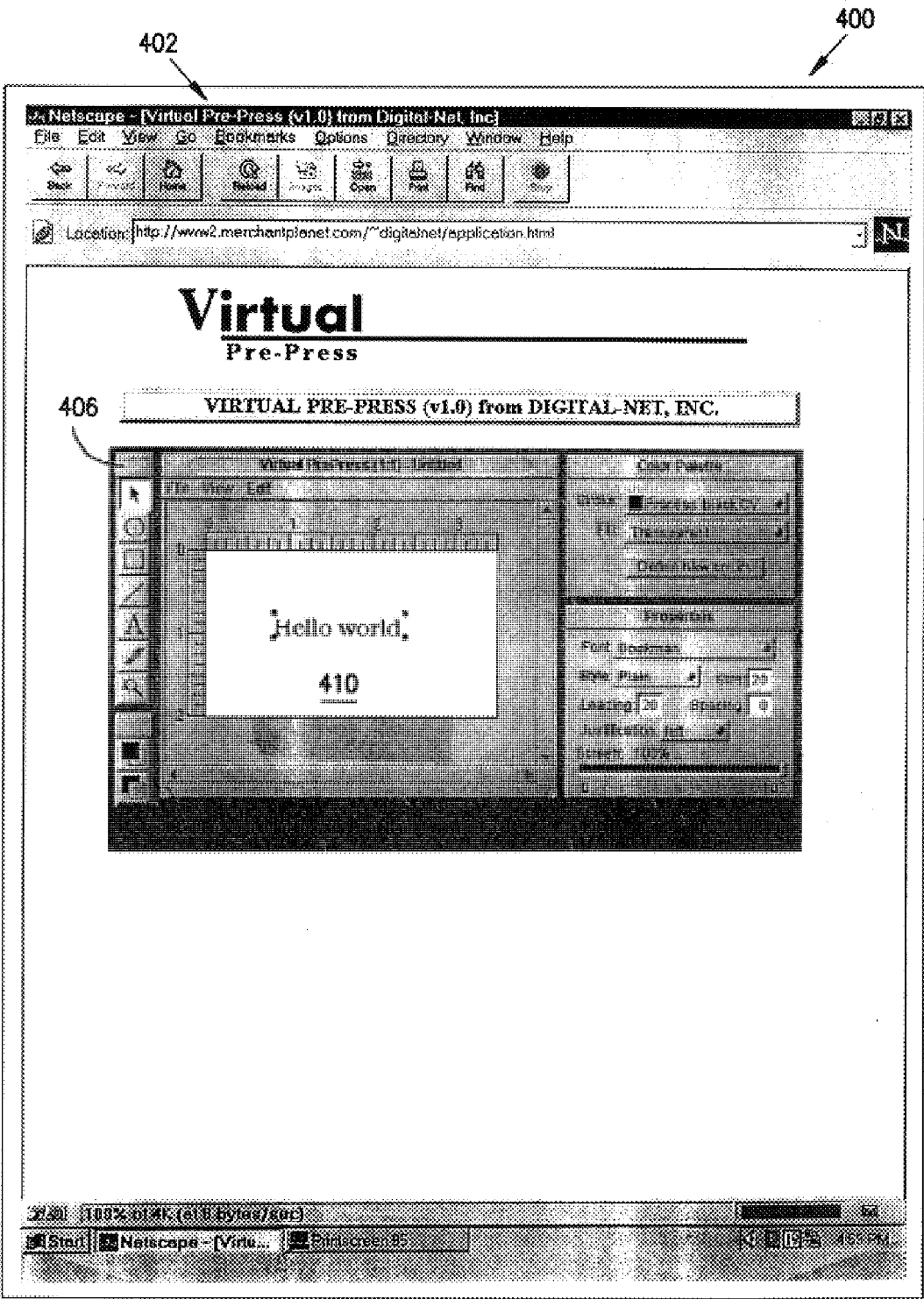


FIG. 4i



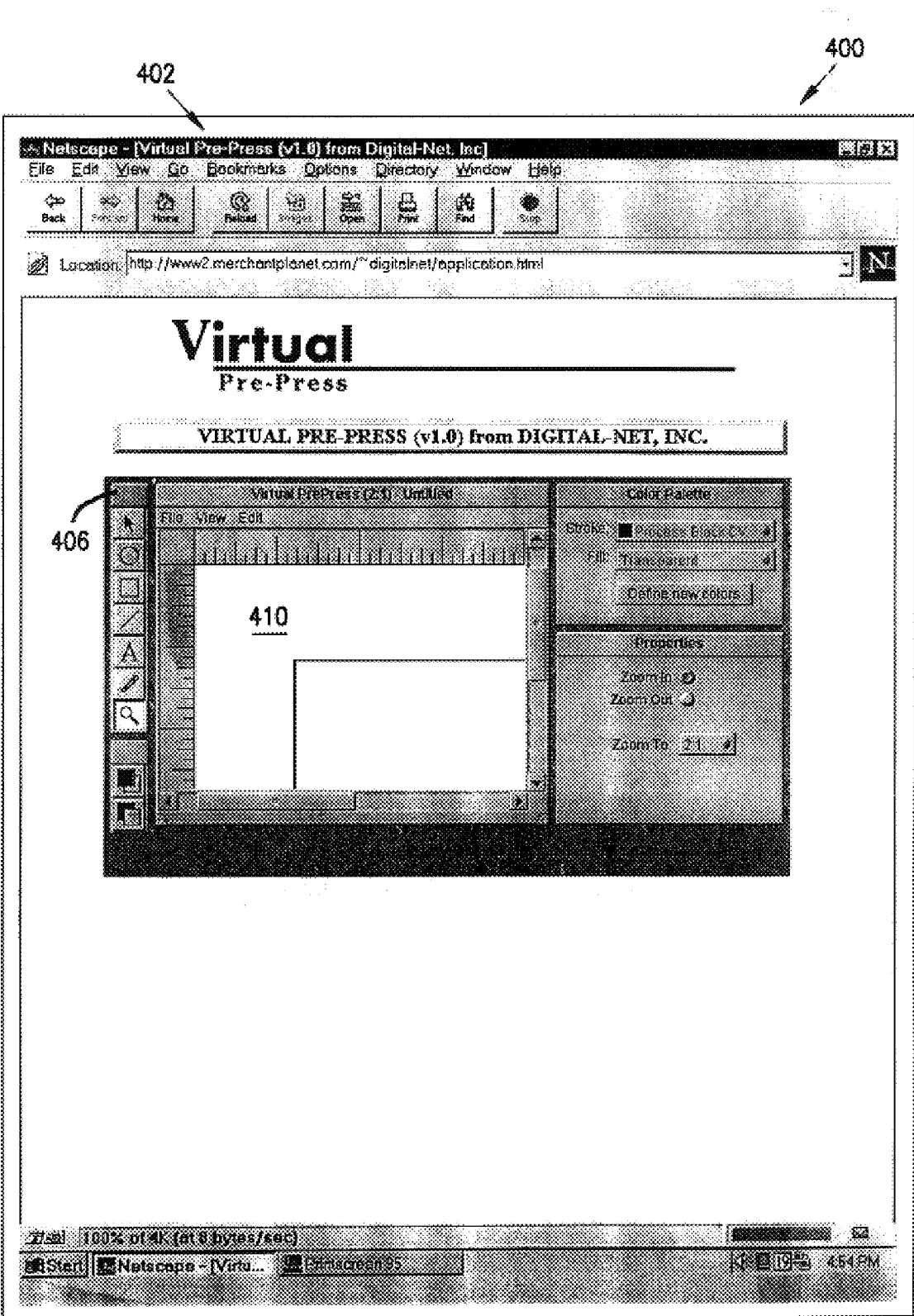


FIG. 4k

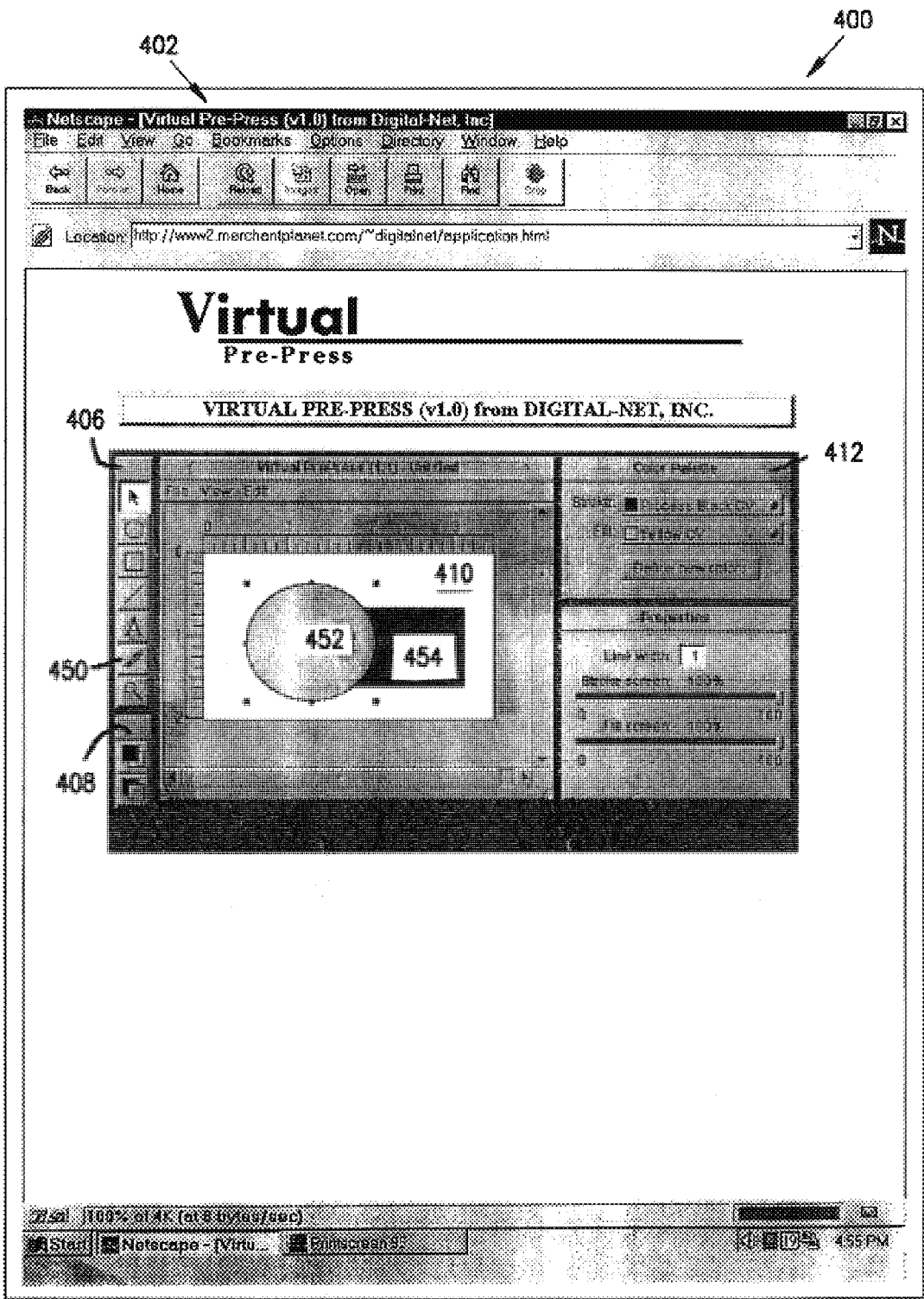


FIG. 41

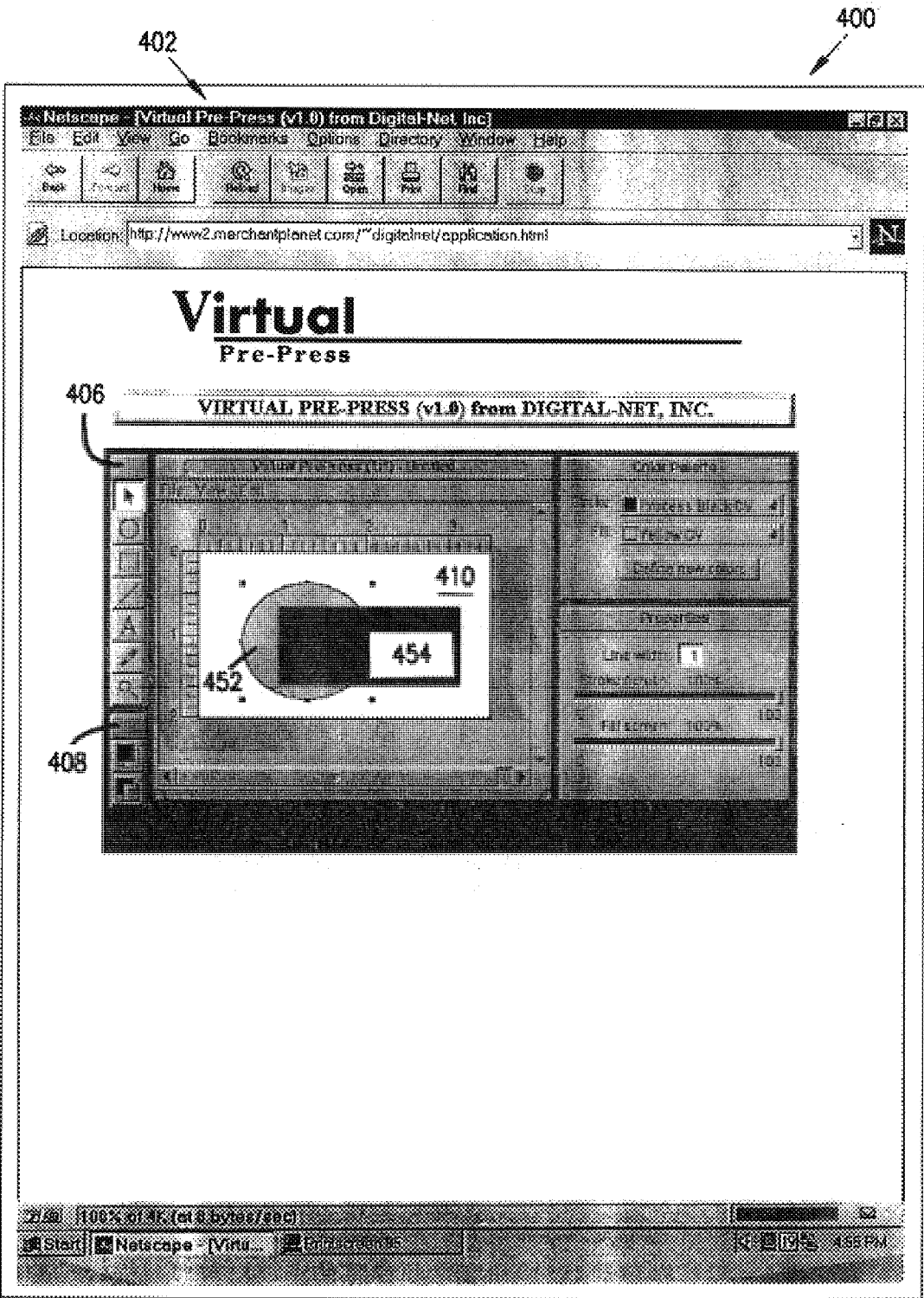


FIG. 4m

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COMPUTERIZED PREPRESS AUTHORIZING FOR DOCUMENT CREATION

FIELD OF THE INVENTION

This invention relates generally to print and print-
publishing prepress, and more particularly to such prepress
that is computerized.

BACKGROUND OF THE INVENTION

The publishing process typically requires several steps to
successfully complete a printed publication. Such steps
include planning and organizing, design and content
development, and prepress tasks where electronic files are
prepared to be reproduced with ink on paper. Broadly
speaking, prepress involves the preparation of all the elec-
tronic files that will be utilized to create a publication printed
with paper and ink. For a professional publication, this
usually involves utilizing an authoring program to create the
electronic version of the publication itself, and then using
another program (which may be a component of the author-
ing program), to translate this electronic version into a
format from which paper and ink copies of the publication
can be printed.

Portions if not all of the prepress process is difficult for
non-professionals to accomplish, however. While tools such
as Adobe PageMaker and Quark Express enable profession-
als to more easily create professional-looking documents,
most non-professionals find these computer programs overly
complex and difficult to use. That is, although the computers
sitting on the desks of such non-professionals are sufficiently
powerful to handle such tasks, the users themselves may not
be sufficiently knowledgeable to perform them. Furthermore,
even for experienced professionals, the pre-
press process is fraught with uncertainty; for example, the
professional must know the type of paper and ink output that
is desired a priori before translating an electronic version of
a document into a format from which paper and ink copies
can be printed. That is, even for experienced professionals,
the prepress process is not tightly integrated enough to attain
fast, easy and cost-effective print publishing.

SUMMARY OF THE INVENTION

The above-identified shortcomings as well as other short-
comings and problems are addressed by the present
invention, which will be understood by reading and studying
the following specification. In one embodiment, a comput-
erized prepress system includes three components: a server,
a client and a printer. The server has stored thereon an
authoring program to create a document, and a translation
program to translate the document to a suitable prepress
format. The client downloads the authoring program from
the server to create the document, and then uploads the
document to the server for translation to the suitable pre-
press format. The printer receives the document as translated
to the suitable prepress format from the server, such that the
printer may then print copies of the document.

More specifically, in one particular embodiment of the
invention, the authoring program is written in the program-
ming language Java, and the client, server and printer are
each connected to an intranet the Internet. Thus, a user at
the client needs only to run a web browser program, such as
Netscape Navigator, to access the server and download and
run the authoring program. Once the user has created a
document with the authoring program, it is saved at the
server. The server may then as required translate the docu-

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ment into a suitable prepress format—such as PostScript—
and send it to the printer (e.g., as a MIME-compliant
electronic mail) for printing.

The invention thus provides for several advantages. The
user at the client does not need to know anything about the
prepress format required by the printer. Since the server
stores the authoring program that is then downloaded to the
client for creation of a document, the server can maintain the
authoring program such that it knows both the format to
which the authoring program saves the document, and the
format to which the document must be translated for printing
at the printer. Furthermore, the authoring program stored at
the server may be as simple as necessary for novice users to
comfortably use, or as powerful as necessary for experi-
enced users to use. The professional user benefits from the
tight integration of the invention, in that the professional
user need only be concerned with creating the document,
and not the manner by which the document will ultimately
be printed with paper and ink, which may already be
preselected within the server.

In different embodiments of the invention, computerized
methods, computerized systems, computers, and computer-
readable media of varying scope are described. Still other
and further embodiments, aspects and advantages of the
invention will become apparent by reference to the drawings
and by reading the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram of a computer in conjunction with
which embodiments of the invention may be implemented;

FIG. 2 is a diagram of a computerized prepress system in
accordance with one embodiment of the invention;

FIG. 3 is a diagram of a computerized prepress method in
accordance with one embodiment of the invention; and,

FIGS. 4a–4m are diagrams of screens displayed on a
display device of a computer in conjunction with one
embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

In the following detailed description of the preferred
embodiments, reference is made to the accompanying draw-
ings which form a part hereof, and in which is shown by way
of illustration specific preferred embodiments in which the
inventions may be practiced. These embodiments are
described in sufficient detail to enable those skilled in the art
to practice the invention, and it is to be understood that other
embodiments may be utilized and that logical, mechanical
and electrical changes may be made without departing from
the spirit and scope of the present invention. The following
detailed description is, therefore, not to be taken in a limiting
sense, and the scope of the present invention is defined only
by the appended claims.

Referring first to FIG. 1, a diagram of a computer in
conjunction with which embodiments of the invention may
be implemented is shown. Computer 110 is operatively
coupled to display device 112, pointing device 114, and
keyboard 116. Computer 110 includes a processor
(preferably, an Intel Pentium processor), random-access
memory (RAM) (preferably, at least thirty-two megabytes),
read-only memory (ROM), and one or more storage devices,
such as a hard disk drive, a floppy disk drive (into which a
floppy disk can be inserted), an optical disk drive, and a tape
cartridge drive. The memory, hard drives, floppy disks, etc.,
are types of computer-readable media. The hard drives and

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floppy disks are more specifically types of nonvolatile store media. Computer programs running on the computer are executed by the processor from the computer-readable media. The invention is not particularly limited to any type of computer 110. Computer 110 preferably is a PC-compatible computer or a MacOS-compatible computer. The construction and operation of such computers are well known within the art.

Furthermore, computer 110 may be communicatively connected to the Internet via a communication device, any particular manner by which the invention is not limited to, and which is not shown in FIG. 1. Internet connectivity is well known within the art. In one embodiment, the computer includes a communication device that is a modem and corresponding communication drivers to connect to the Internet via what is known in the art as a “dial-up connection.” In another embodiment, the computer includes a communication device that is an Ethernet or similar hardware (network) card to connect to a local-area network (LAN) that itself is connected to the Internet via what is known in the art as a “direct connection” (e.g., T1 line, etc.).

Computer 110 also has at least one operating environment running thereon, each desirably providing a graphical user interface including a user-controllable pointer. Such operating environments include operating systems such as versions of the Microsoft Windows and Apple MacOS operating systems known in the art. The invention is not limited to any particular operating environment, however, and the construction and use of such operating environments are well known within the art. Computer 110 also desirably has at least one web browser application program running with at least one operating environment, to permit users of computer 110 to access intranet or Internet world-wide-web pages as addressed by Universal Resource Locator (URL) addresses. Such browser application programs include Netscape Navigator and Microsoft Internet Explorer.

Display device 112 permits the display of information, including computer, video and other information, for viewing by a user of the computer. The invention is not limited to any particular display device 112. Such display devices include cathode ray tube (CRT) displays (monitors), as well as flat panel displays such as liquid crystal displays (LCD's). Pointing device 114 permits the control of the screen pointer provided by the graphical user interface of operating systems such as versions of Microsoft Windows. The invention is not limited to any particular pointing device 114. Such pointing devices include mice, touch pads, trackballs, remote controls and point sticks. Finally, keyboard 116 permits entry of textual information into computer 110, as known within the art, and the invention is not limited to any particular type of keyboard.

Referring next to FIG. 2, a diagram of a computerized system in accordance with one embodiment of the invention is shown. Each of client computer 200, server computer 202, and printer computer 204 is a computer, such as that shown in and described in conjunction with FIG. 1, although the invention is not so limited. Thus, each of client computer 200, server computer 202, and printer computer 204 has a processor, a computer-readable medium from which computer programs are executed by the processor, and a communications device, such as a network card, or a modem. Client computer 200, server computer 202, and printer computer 204 are communicatively coupled to one another via the Internet 206. Note that in one embodiment, Internet 206 is replaced by an extranet or an intranet, as known within the art, and as may be found in corporate and other environments.

Server computer 202 is desirably an extranet, intranet or Internet world-wide-web server, as known in the art, such that it has assigned thereto a Universal Resource Locator (URL) address to permit client computer 200, as well as other computers, to access the server. The invention is not particularly limited to a type of server 202. Typical examples include those running software available from Netscape, Microsoft, Apache, NCSA, and others. Server 202 is also not limited to running on a particular operating system (OS); common operating systems including Microsoft Windows 95, Microsoft Windows NT, Apple MacOS and UNIX.

Server computer 202 has stored thereon authoring program 208. Authoring program 208 is downloaded from server 202 by and to client 200 through the Internet 206, although this is more directly represented by arrow 210. Authoring program 208 desirably is run within operating environment 212 running on client 200. Such an operating environment 212 includes those provided by extranet, intranet and Internet world-wide-web browser programs such as Microsoft Internet Explorer and Netscape Navigator. For example, in one embodiment, authoring program 208 is coded in the programming language Java, such that program 208 is a Java applet that is downloaded through the Internet by client 200, and runs within an operating environment 212 that is a browser program that is Java capable. In other embodiments of the invention, authoring program 208 may be coded in the programming language Perl, C, C++, ActiveX, or other programming languages; the invention is not so limited.

Authoring program 208 is used within client computer 200 to create document 214. Document 214 is a document created by the user of computer 200, using authoring program 208, for printing and publishing. The invention is not limited to any type of authoring program 208; in one embodiment of the invention, authoring program 208 is that which is shown in and will be described in conjunction with FIGS. 4a-4m. The invention is also not limited to any particular document 214. In one embodiment of the invention, document 214 is a business card; however, other documents amenable to the invention include letterheads, pamphlets, brochures, envelopes, etc.

Once document 214 has been created at client 200, it is uploaded to server 202 for saving at the server, through the Internet 206, as more directly represented by arrow 216. Document 214 is saved at the server 202 on a non-volatile storage device of the server, such as a hard disk drive. It is saved in an internal file format that maximizes efficiency in the storage of the document. Once the document 214 is ready to be sent to a printer for printing and publication (as may be indicated by client 200 to server 202), server 202 runs translation program 218 on document 214 (program 218 being stored on server 202) as saved in the internal file format to generate a translated document 220, as represented by arrow 222. The translation program 218 translates document 214 into a file format suitable for prepress, such as PostScript. Other file formats suitable for prepress include HTML, PDF, and PostScript extreme, as known within the art. Translation program 218 performs any color separations, or other operations as required by the suitable prepress file format. The invention is not limited to any particular suitable prepress file format.

Server 202 then transmits the translated document 220 through the Internet 206 to printer 204, as more directly represented by arrow 224. In one embodiment, this is accomplished by server 202 attaching the translated document 220 as an attachment file to a MIME-compliant electronic mail, which may then be sent to the electronic

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mail address of printer **204**. However, the invention is not limited to any manner by which such transmission occurs. Once the printer **204** has received the translated document **220**, document **220** may then be printed and published as needed.

Referring next to FIG. 3, a flowchart of a computerized method according to an embodiment of the invention is shown. This method is inclusive of the steps or acts required to be taken by a client computer, a server computer, and a printer computer to create a document at the client computer, for translation by the server computer, and for printing at the printer computer, in accordance with one embodiment of the invention. These steps or acts are performed in accordance with one or more computer programs, such as authoring programs, and translation programs, as have been described in conjunction with FIG. 2. The embodiment of the invention described in conjunction with FIG. 3 refers to the situation where the client, the server and the printer are communicatively coupled to one another through the Internet, where the client is running a web browser program and the server is a web server; however, the invention is not so limited.

In step **300**, the client computer accesses the web site of the web server, as referenced by a URL address, through its web browser program, and logs onto the web server. Logging on to the server desirably includes submitting user information regarding the user at the client, such as the user's name and password. Once the server has received this information, it authenticates the user, looking up the user information submitted to determine whether such a user exists, and whether the password for the user is correct. Authentication also includes associating the user with a particular directory on the server computer (e.g., on which to store the documents created by the user), a set of defaults regarding options available to the user within the authoring program (e.g., fonts, colors, images and commands), and an authorization level. The authorization level dictates what the user is permitted to do within the program; for example, a "normal" user may be allowed to create, save and print his or her own documents, an "administrator" may be permitted to access anyone's documents within the administrator's work group, and a "demonstration" user is permitted to create documents, but not permitted to save or print them.

In step **302**, the client downloads the authoring program from the server. As has been described, in one embodiment the authoring program is coded in Java, such that the program is a Java applet running within the browser program of the client. In step **304**, the client then uses the authoring program to create a document, such as a business card, a letterhead, etc. Once the document has been created, in step **306** the client selects a save command, which uploads the document to the server, where it is saved. Steps **300** through **306** are iterative; the user at the client may continually save the document to the server, and then relogin at a subsequent time to again revise the document.

Once the document is in final form according to the user, the user selects a print command in step **308**. This signals the server to translate the document into a suitable prepress format, such as PostScript, or another format as previously described, and send the document to the printer computer in step **310**, such as an electronic mail attachment. Thus, the internal format in which the document is saved in step **306** is different than the format to which the document is translated in step **308** and sent to the printer in step **310**. Once the printer receives the document, the document may then be printed and published.

Referring next to FIGS. 4a-4m, diagrams of screens displayed on a display device of a computer in conjunction

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with one embodiment of the invention are shown. More particularly, the diagrams are screens regarding an authoring program according to one embodiment of the invention. Referring first to FIG. 4a, within display device **400** is operating environment window **402** within which the authoring program runs. Specifically, operating environment window **402** is part of a web browser program, such as Netscape Navigator. The authoring program is a Java applet that runs within the web browser. The authoring program includes six primary areas: menu bar **404**, tool bar **406**, orientation bar **408**, work area **410**, color palette area **412**, and properties area **414**. The user of the computer utilizes tool bar **406**, orientation bar **408**, menu bar **404**, color palette area **412**, and properties area **414** as tools to create a document within work area **410**. Work area **410** is sized in accordance with the type of document to be created. For example, as shown in FIG. 4a, the type of document to be created is a business card. The properties area **414** shows commands that may be used in conjunction with the currently selected tool from tool bar **406**.

Clicking "file" on menu bar **404** drops down the file menu, as shown in FIG. 4b. The file menu permits a user to create a new document, such as a business card, letterhead, or envelope, insert an image, open or save a document, revert the current work area to the document as most recently saved, or print to a file (i.e., cause the translation program to be run). The images are saved as files on the server in a particular format, such as encapsulated PostScript, TIFF, GIF, and JPEG. Desirably, the images have a maximum resolution of 1:1, to minimize the size of the encapsulated PostScript file (or file in another format). Opening or saving a document retrieves or stores a document, respectively, on a computer-readable medium of the server. Printing the document to a file causes the translation program to run, such that the file is translated to a format suitable for prepress, and then sent to the printer.

Clicking "View" on menu bar **404** drops down the view menu, as shown in FIG. 4c. The view menu permits a user to call up different tools of the authoring program, which may have become hidden from view (e.g., by previous user choice), or previously unselected by the user. Selecting "Toolbar" calls up tool bar **406**. Selecting "Move to Front/Move to Back" calls up orientation bar **408**. Selecting "Color Palette" brings up color palette area **412**. Selecting "Properties" brings up properties area **414**. Selecting "Rulers" brings into view rulers **416** and **414**, each on a side of work area **410**. Finally, selecting "Grid" causes a grid to be superimposed on work area **410** (not shown in FIG. 4c).

Clicking "Edit" on menu bar **404** drops down the edit menu, as shown in FIG. 4d. The edit menu permits a user to cut, copy, paste selected elements (i.e., objects) within work area **410**, or select all the elements, such that the user is then able to cut, copy, or paste all the elements. The cut, copy, and paste commands thus operate as known to those of ordinary skill within the art.

Color palette area **412** is described in conjunction with FIG. 4e. The user is able to select both stroke and fill color from a menu of predetermined colors. The stroke color refers to the color in which the boundaries of a particular object is drawn within work area **410** (not shown in FIG. 4e), while the fill color refers to the color inside the boundaries of the particular object within work area **410**. Colors may be added within the menu of predetermined colors by defining a new color, accomplished by pressing the define new colors button, which brings up window **418**. Within the window, the user is able to select new colors, which are desirably the entire palette of colors available from Pantone, as known

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within the art. In other embodiments, colors are selected from palettes of colors available from Toyo, Focaltone, or Tru-match, as also known within the art.

Referring next to FIG. 4f, selecting the arrow tool on tool bar 406 allows the user to select an object within work area 410. Selecting the circle tool on tool bar 406 enables a user to create a circle or oval, such as that shown in work area 410 in FIG. 4f. Referring next to FIG. 4g, selecting the rectangle tool on tool bar 406 permits a user to create a rectangle, such as that shown in work area 410 in FIG. 4g. Referring next to FIG. 4h, selecting the line tool on tool bar 406 enables a user to create a line, such as that shown in work area 410 in FIG. 4h. In the creation of a circle, rectangle, or line, the authoring program performs the creation of the particular object (e.g., the circle, the rectangle, or the line) itself, and does not consult the server to determine the manner in which the object is to be created.

Conversely, selecting the text tool on tool bar 406 causes the authoring program to first allow the user to input the text to be entered on work area 410, displaying the text in a rough manner. Next, the authoring program sends the text to the server, which translates the text into an image, desirably an image in GIF format and having a maximum resolution of 4:1, which is then sent back to the client for display on work area 410. (Other image formats include JPEG and TIFF; the invention is not so limited.) This is shown in conjunction with FIG. 4i and 4j. In FIG. 4i, the user has entered the text string "Hello world" but has not yet pressed return; therefore, the text string is shown in a rough manner. Once the user presses return, the client sends the text string to the server for conversion to an image, which is then sent to the client and displayed on work area 410, as is shown in FIG. 4j. The reason this is accomplished is that different computers have different font generation engines, while the authoring program is desirably a what-you-see-is-what-you-get (WYSIWYG) program, showing the user on the display device exactly what will be printed at the printer.

Referring next to FIG. 4k, selecting the zoom tool on tool bar 406 enables a user to zoom in and out on the document within work area 410, as is shown in FIG. 4k. Referring to FIG. 4l, selecting the color picker tool (tool 450) on tool bar 406 enables a user to set a color within color palette area 412 to that of a current object within work area 410. For example, clicking within object 452 in work area 410 while using the color picker tool sets the current fill color to that of the fill color of object 452. This enables users to precisely set a color to an already existing color within the document, which is especially advantageous in situations where there are multiple shades of one color in a document, which may be difficult to discern.

Selecting the top icon within orientation bar 408 brings the currently selected object within area 410 to the front of other objects. For example, as shown in FIG. 4l, selecting the top icon while object 452 is selected (as denoted by dots outlining the rectangular boundary of the object) brings object 452 to the front, over the other object within the work area (e.g., object 454). Conversely, selecting the bottom icon within orientation bar 408 moves the currently selected object within area 410 to the back of other objects. For example, as shown in FIG. 4m, selecting the bottom icon while object 452 is selected moves object 452 to the back, behind the other object within the work area (e.g., object 454).

Computerized prepress has been described. Although specific embodiments have been illustrated and described herein, it will be appreciated by those of ordinary skill in the

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art that any arrangement which is calculated to achieve the same purpose may be substituted for the specific embodiments shown. This application is intended to cover any adaptations or variations of the present invention. For example, the invention is fully intended to cover databases as well as dynamic directories, such that the term directory may be interpreted to encompass any database amenable to the invention in such an embodiment of the invention. Therefore, it is manifestly intended that this invention be limited only by the following claims and equivalents thereof.

We claim:

1. A computerized prepress method comprising:

storing on a server computer a computerized prepress software system, wherein the prepress software system includes one or more document authoring tools and at least one prepress translation component, further wherein at least some of the authoring tools are downloadable to a client computer to be used to author an electronic document and the translation component is used to produce a prepress format file from an authored electronic document;

wherein at least one downloaded authoring tool is a program that executes in the web browser and has one or more functions that can be used to create an electronic document, display the electronic document in WYSIWYG form to the user, and allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

the software system further configured to provide that the authoring tools create an electronic document using the client computer and that the client computer transfers the electronic document to the server computer in a form allowing the translation component executing on the server computer to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need only be concerned with authoring the electronic document and not with the creating a prepress format file, and further so that the authored electronic document can be automatically processed by the server computer into a prepress format file;

wherein the client computer is one of a plurality of client computers each including a web browser capable of interacting with at least one Internet web site addressed by a uniform resource locator (URL) and the server computer is one of at least one server computers connected to the plurality of client computers over the Internet;

sending log-on information regarding a user from a client computer to the server computer over the Internet, wherein the user has profile data maintained by the server computer, and authenticating the user at the server computer;

downloading one or more of the authoring tools from the server computer to the client computer;

the user using at least one downloaded authoring tool at the client computer to create an electronic document;

sending the electronic document from the client computer to the server computer;

saving the electronic document in an internal format at the server computer;

and using the translation component, translating the electronic document from the internal format to a different

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suitable prepress format file usable to produce a corresponding document on a printing device.

2. The computerized prepress method of claim 1, wherein authenticating the user at the server computer comprises associating the user with at least one of a particular directory on the server computer, a set of defaults regarding fonts, colors, images and commands available to the user, and an authorization level selected from the group of authorization levels essentially comprising normal, administrator, and demonstration.

3. The computerized prepress method of claim 1, wherein the authoring program downloaded from the server computer to the client computer is coded in a language selected from the group essentially comprising Perl, Java, C++, C, and ActiveX.

4. The computerized prepress method of claim 1, wherein the electronic document is selected from the group essentially comprising a business card, a letterhead, an envelope, and a brochure.

5. The computerized prepress method of claim 1, wherein the authoring program comprises a color palette area to select a color from a palette of colors.

6. The computerized prepress method of claim 5, wherein the palette of colors comprises the palette of colors available from one selected from the group essentially comprising Pantone, Toyo, Focaltone, and Tru-Match.

7. The computerized prepress method of claim 1, wherein using the authoring program at the client computer to create an electronic document comprises sending desired text from the client computer to the server computer for translation into an image and sending the image from the server computer back to the client computer.

8. The computerized prepress method of claim 7, wherein the image is in a format selected from the group essentially comprising GIF, TIFF, and JPEG.

9. The computerized prepress method of claim 7, wherein the image has a maximum resolution of 4:1.

10. The computerized prepress method of claim 1, wherein the document includes one or more images, at least one of the images being in a format selected from the group essentially comprising encapsulated PostScript, TIFF, GIF, and JPEG.

11. The computerized prepress method of claim 10, wherein at least one of the images has a maximum resolution of 1:1.

12. The computerized prepress method of claim 1, wherein the different format file is selected from a group essentially comprising PostScript, HTML, PDF, and PostScript Extreme.

13. The computerized prepress method of claim 1, further including distributing the prepress format file to a location remote from the server computer for printing at the remote location.

14. A computerized prepress system comprising:

a server having stored thereon a computerized prepress software system, wherein the prepress software system includes one or more document authoring tools and at least one prepress translation component, further wherein at least some of the authoring tools are adapted to download to a client computer to be used to author an electronic document and the translation component is adapted to produce a prepress format file from an authored electronic document;

wherein at least one downloaded authoring tool is a program that is adapted to execute in a web browser and has one or more functions adapted to create an electronic document, display the electronic document

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in WYSIWYG form to the user, and allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

the software system further adapted to provide that the authoring tools create an electronic document using the client computer and that the client computer transfers to the server computer the electronic document in a form allowing the translation component executing on the server computer to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need only be concerned with authoring the electronic document and not with the creating a prepress format file, and further so that the authored electronic document can be automatically processed by the server computer into a prepress format file; and

wherein the client computer is one of a plurality of client computers each including a web browser capable of interacting with at least one Internet web site addressed by a uniform resource locator (URL) and the server computer is one of at least one server computers connected to the plurality of client computers over the Internet.

15. The computerized prepress system of claim 14, wherein the server comprises an Internet world-wide-web server.

16. The computerized prepress system of claim 14, wherein the browser program is selected from the group essentially comprising Netscape Navigator and Microsoft Internet Explorer.

17. The computerized prepress system of claim 14, wherein the authoring program is coded in a language selected from the group essentially comprising Perl, Java, C++, C, and ActiveX.

18. The computerized prepress system of claim 14, wherein the electronic document is selected from the group essentially comprising a business card, a letterhead, an envelope, and a brochure.

19. The computerized prepress system of claim 14, wherein the authoring program comprises a color palette area to select a color from a palette of colors.

20. The computerized prepress system of claim 14, wherein the suitable prepress format file is selected from a group essentially comprising PostScript, HTML, PDF, and PostScript Extreme.

21. A client computer comprising:

a processor;

a computer-readable medium;

a communications device;

an operating environment program comprising a web browser executed by the processor from the medium; and, an authoring program downloaded from a server through the communications device and executed by the processor from the medium within the operating environment program, wherein the authoring program includes at least one downloaded authoring tool which has one or more functions adapted to create an electronic document, display the electronic document in WYSIWYG form to the user, and allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

further wherein the authoring program is adapted to provide that the authoring tools create an electronic

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document and that the client computer transfers to the server computer the electronic document in a form allowing a translation program executing on the server computer to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with a WYSIWYG image displayed to the user on the client computer by the authoring program, and so that the user need only be concerned with authoring the electronic document and not with the creating a prepress format file, and further so that the authored electronic document can be automatically processed by the server computer into a prepress format file.

22. The client computer of claim 21, wherein the computer-readable medium is selected from the group essentially comprising memory and a nonvolatile storage medium.

23. The client computer of claim 21, wherein the communications device is selected from the group essentially comprising a modem and a network card.

24. The client computer of claim 21, wherein the operating environment program comprises an Internet world-wide-web browser program.

25. The client computer of claim 21, wherein the operating environment program comprises an intranet world-wide-web browser program.

26. The client computer of claim 21, wherein the operating environment program comprises an extranet world-wide-web browser program.

27. A server computer comprising:

- a processor;
- a computer-readable medium;
- a communications device;
- an authoring program stored on the computer-readable medium for downloading through the communications device and use by a client computer to create an electronic document, wherein the authoring program

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includes one or more document authoring tools and further wherein at least some of the authoring tools are adapted to author an electronic document;

wherein at least one downloaded authoring tool is a program is adapted to execute in a web browser and has one or more functions adapted to create an electronic document, display the electronic document in WYSIWYG form to the user, and allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

the authoring program further adapted to provide that the authoring tools create an electronic document using the client computer and that the client computer transfers the electronic document to the server computer in a form allowing a translation program executing on the server computer to create a prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need only be concerned with authoring the electronic document and not with the creating a prepress format file, and further so that the authored electronic document can be automatically processed by the server computer into a prepress format file; and,

the translation program executed by the processor from the computer-readable medium.

28. The server computer of claim 27, wherein the computer-readable medium is selected from the group essentially comprising memory and a nonvolatile storage medium.

29. The server computer of claim 27, wherein the communications device is selected from the group essentially comprising a modem and a network card.

* * * * *

(12) **United States Patent**
Jecha et al.

(10) **Patent No.:** **US 6,631,375 B2**
(45) **Date of Patent:** ***Oct. 7, 2003**

(54) **ADMINISTRATION AND SEARCH AND
REPLACE OF COMPUTERIZED PREPRESS**

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Minneapolis, MN (US)

(73) Assignee: **VistaPrint Limited**, Hamilton (BM)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 16 days.

This patent is subject to a terminal dis-
claimer.

(21) Appl. No.: **09/204,388**

(22) Filed: **Dec. 2, 1998**

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Related U.S. Application Data

(63) Continuation-in-part of application No. 08/982,438, filed on
Dec. 2, 1997, now abandoned.

(51) **Int. Cl.**⁷ **G06F 17/30**

(52) **U.S. Cl.** **707/9; 707/100; 715/517;
715/530**

(58) **Field of Search** **707/501, 506,
707/530, 517, 5, 7, 9, 100, 501.1; 345/435,
603, 604; 715/501.1, 506, 517, 530**

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,752,053 A * 5/1998 Takakura et al. 345/636

5,790,790 A * 8/1998 Smith et al. 709/206
5,825,986 A * 10/1998 Ferguson 358/1.9
5,848,413 A * 12/1998 Wolff 707/10
5,870,552 A * 2/1999 Dozier et al. 709/219
5,892,909 A * 4/1999 Grasso et al. 709/201
5,963,641 A * 10/1999 Crandall et al. 380/2
5,995,723 A * 11/1999 Sperry et al. 358/1.15
6,020,894 A * 2/2000 Silverbrook 345/433

FOREIGN PATENT DOCUMENTS

EP 475601 A2 * 3/1992 G06T/11/60
EP 674277 * 9/1995 G06F/17/21
EP 689157 * 12/1995 G06K/15/00

OTHER PUBLICATIONS

Edwards, Stephen; Kingsley, Lawrence; Votsch, Victor;
Walter, Mark; "Roll over, Guetnbers: how the Wev is
changing printing"; Sep. 1997; Seybold Report on Internet
Publishing; V2, N1, pp. 1-18.*
Grayson, S., et al., "Adobe Print Publishing Guide", *Adobe
Systems Incorporated*, Entire Manual, (1993-1995).

* cited by examiner

Primary Examiner—Vincent Millin

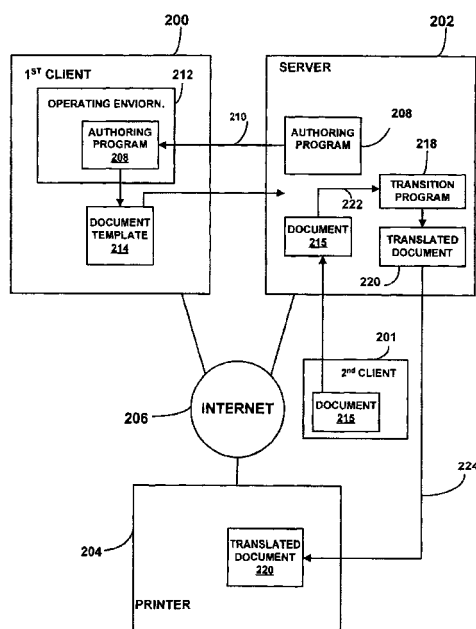
Assistant Examiner—Ella Colbert

(74) *Attorney, Agent, or Firm*—Robert Dulaney

(57) **ABSTRACT**

Computerized client/server prepress using a downloadable
document authoring program. A server has stored thereon a
document authoring program. The program is adapted to
download to a client computer and run in the browser of the
client computer. The authoring program allows the client to
create an electronic document, view the document in WYSI-
WYG form, and upload the created document to the server
for subsequent translation to a suitable prepress format.

44 Claims, 20 Drawing Sheets



U.S. Patent

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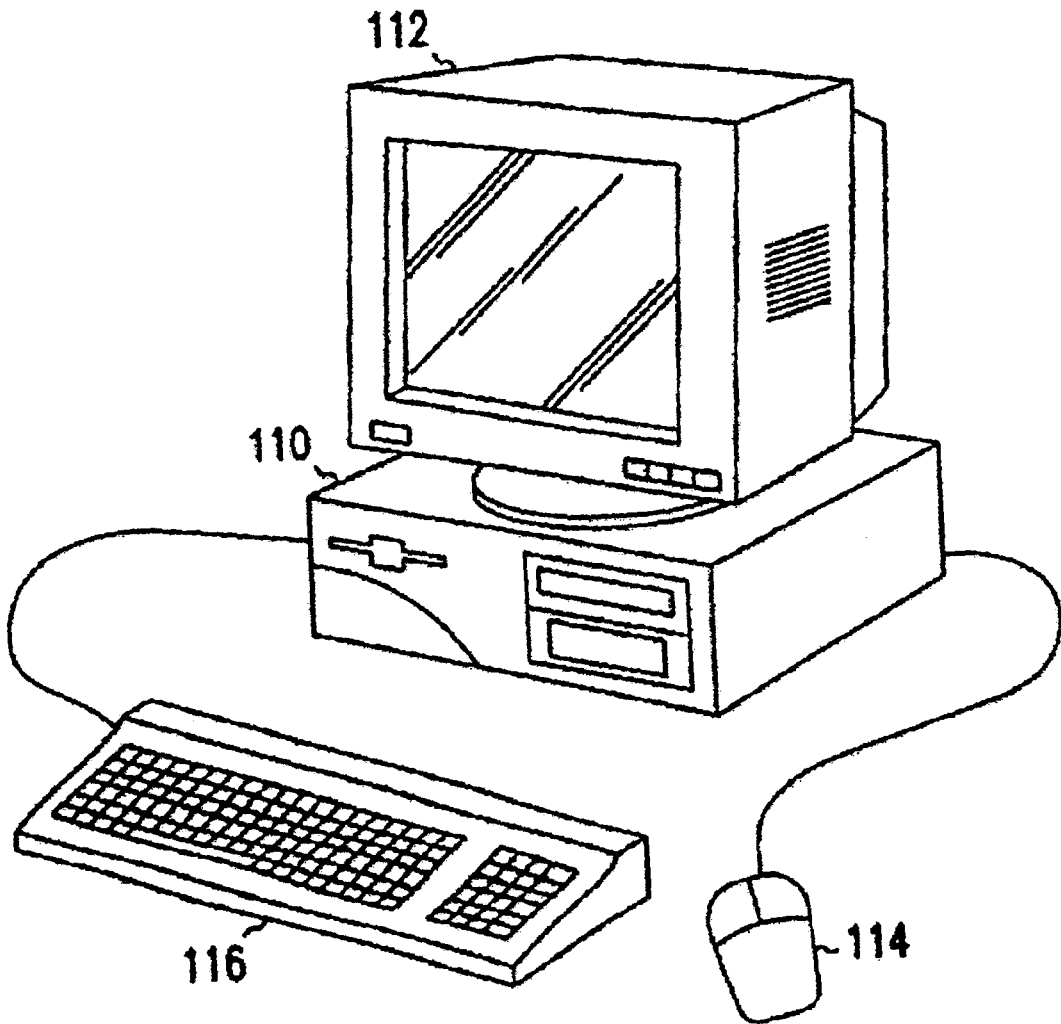


FIG. 1

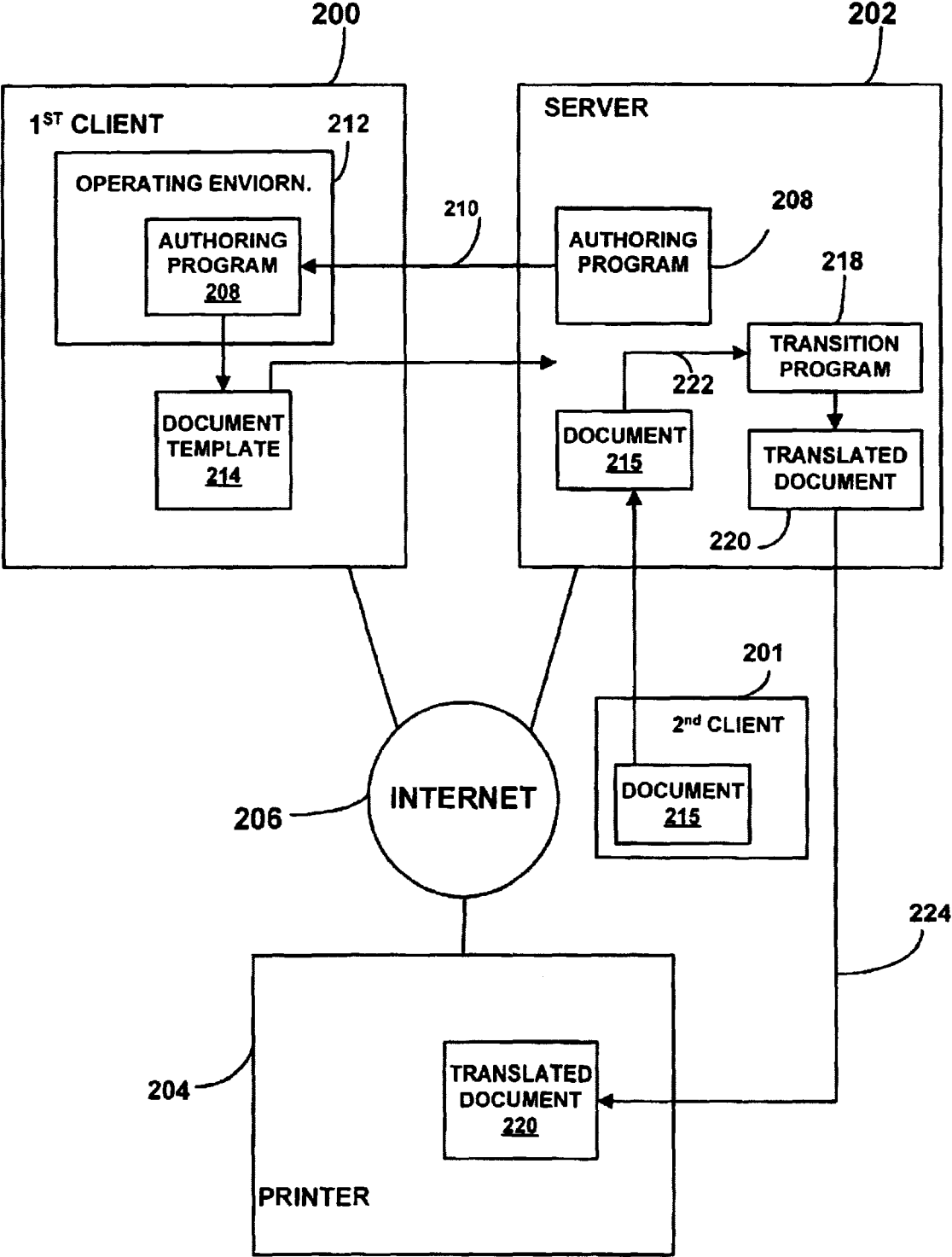


FIG. 2

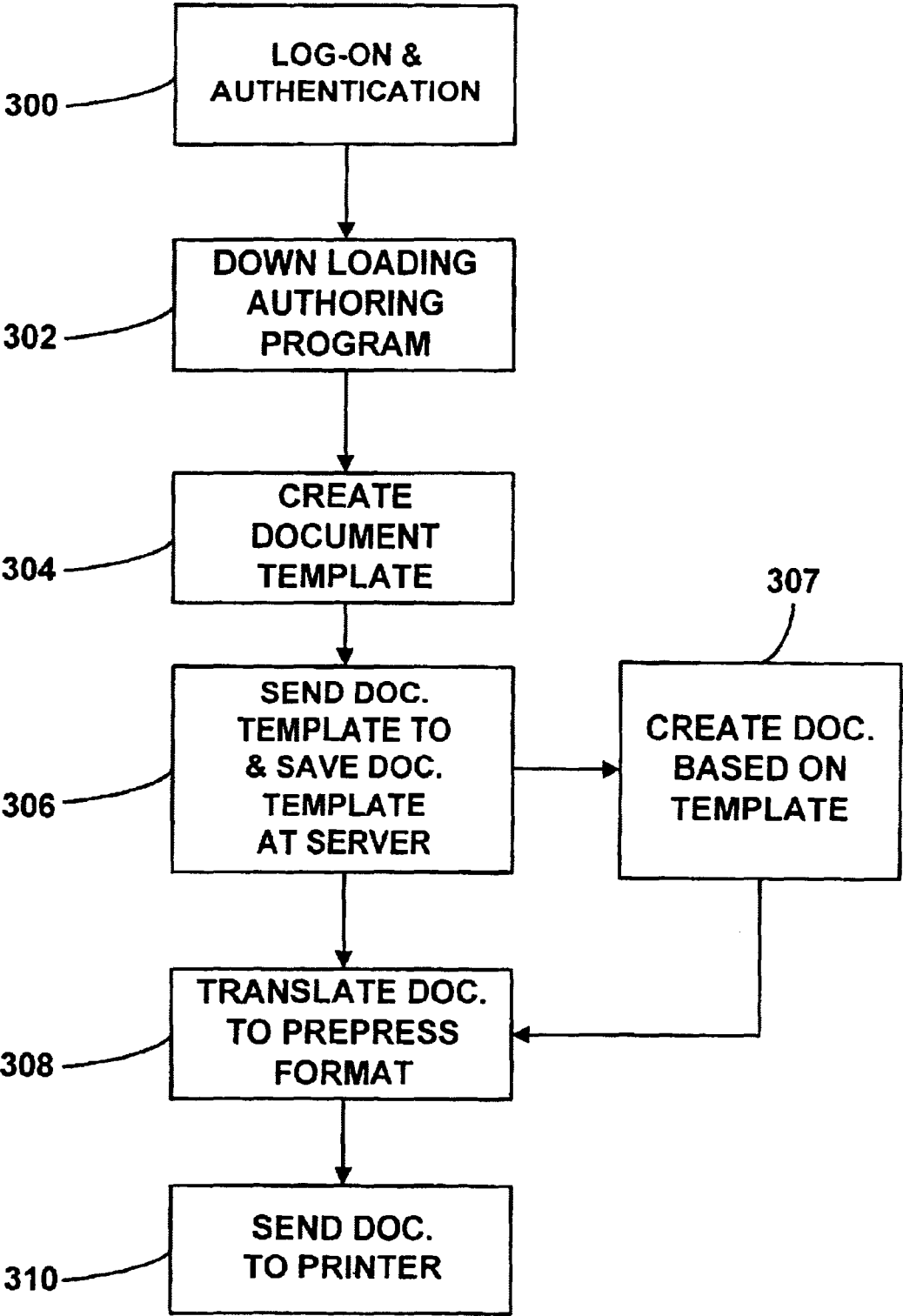


FIG. 3

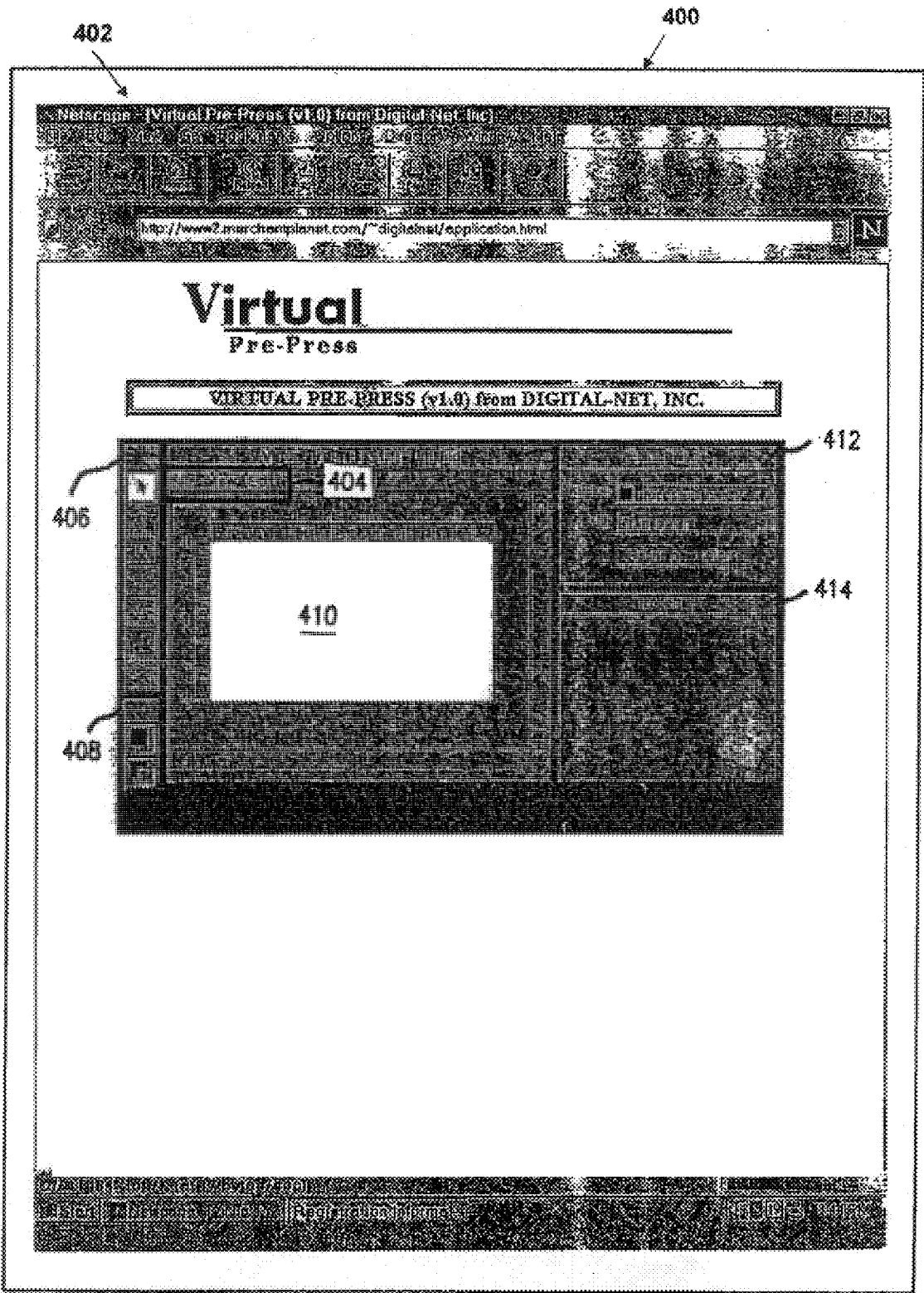


FIG. 4a

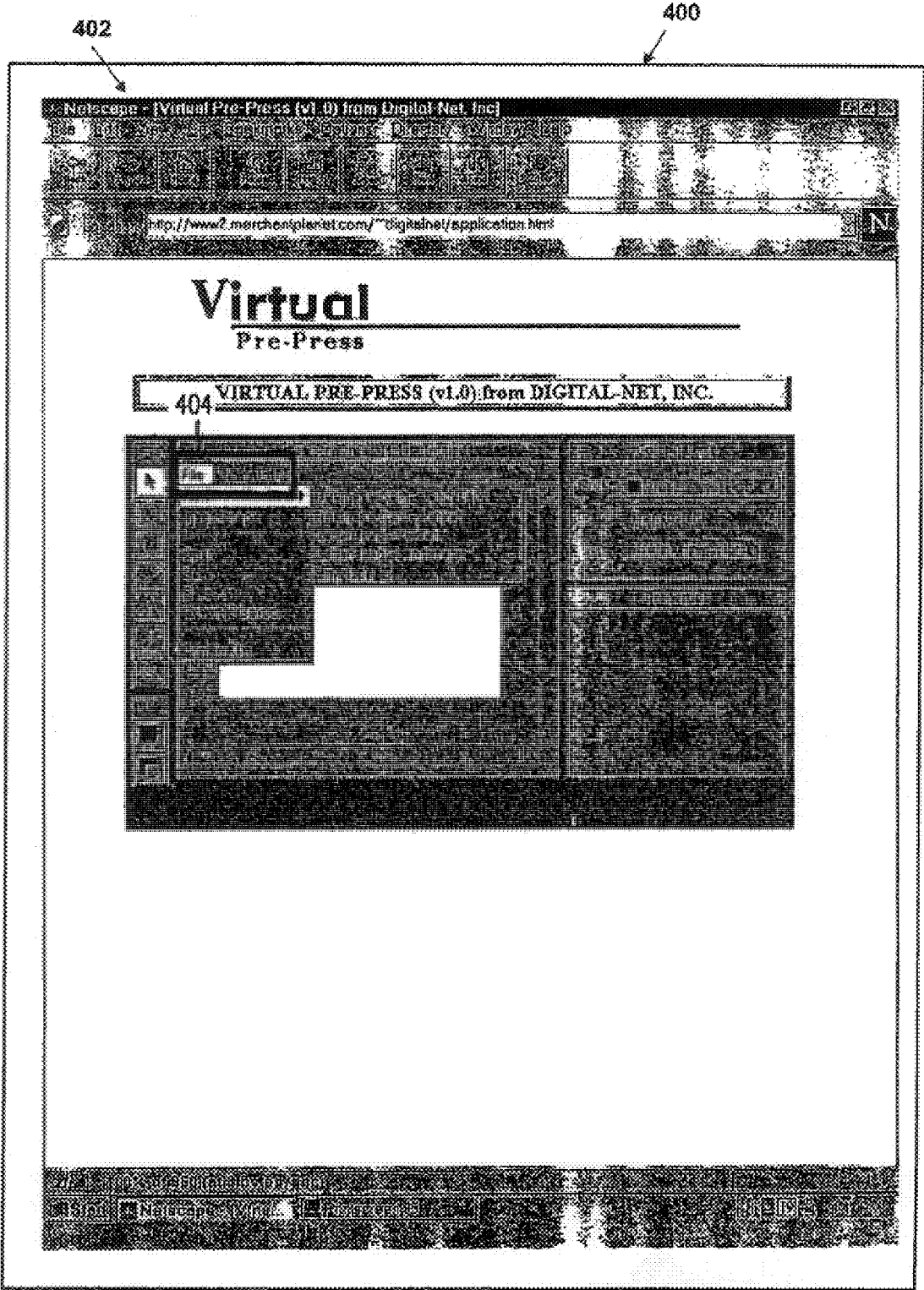
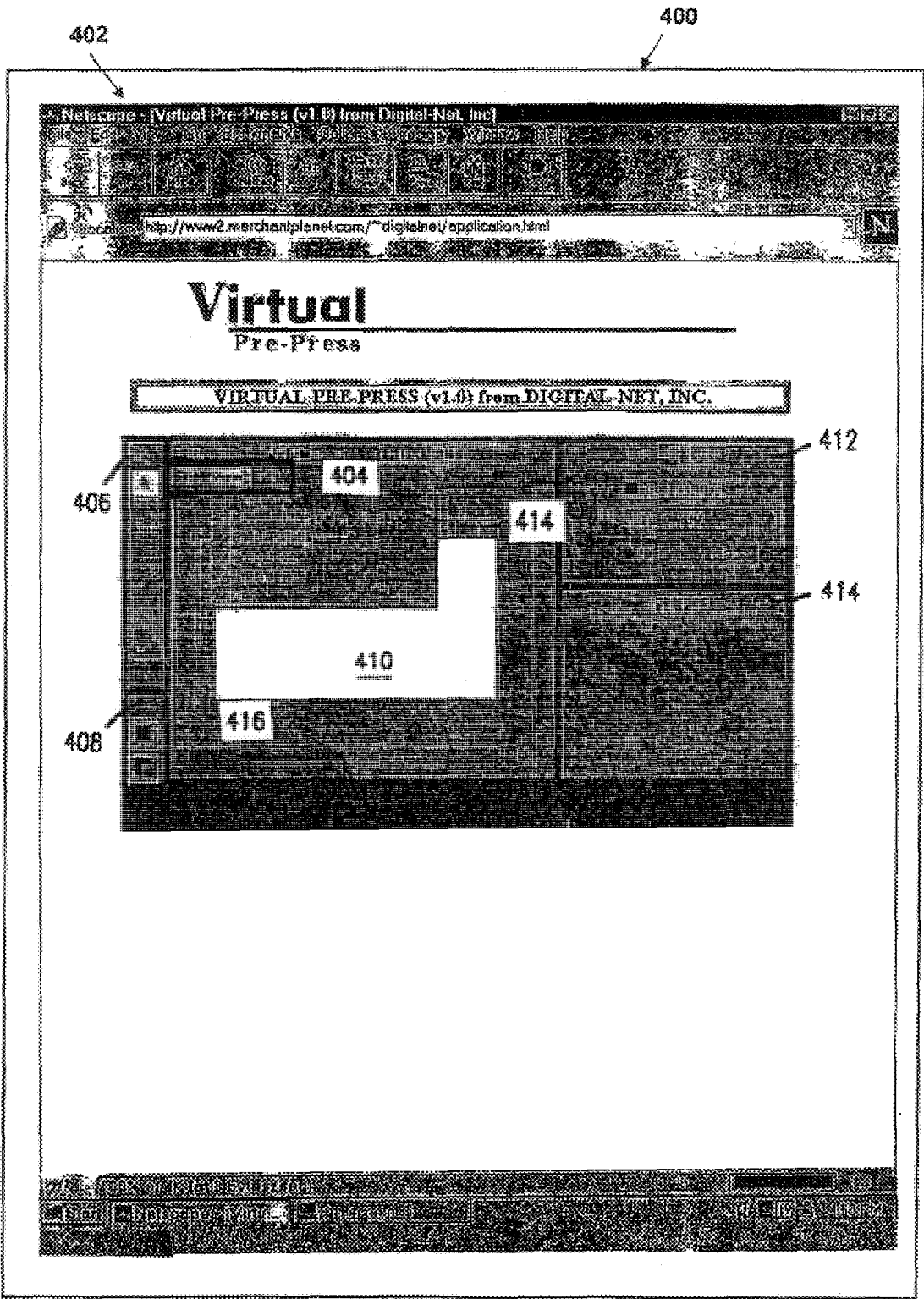


FIG. 4b



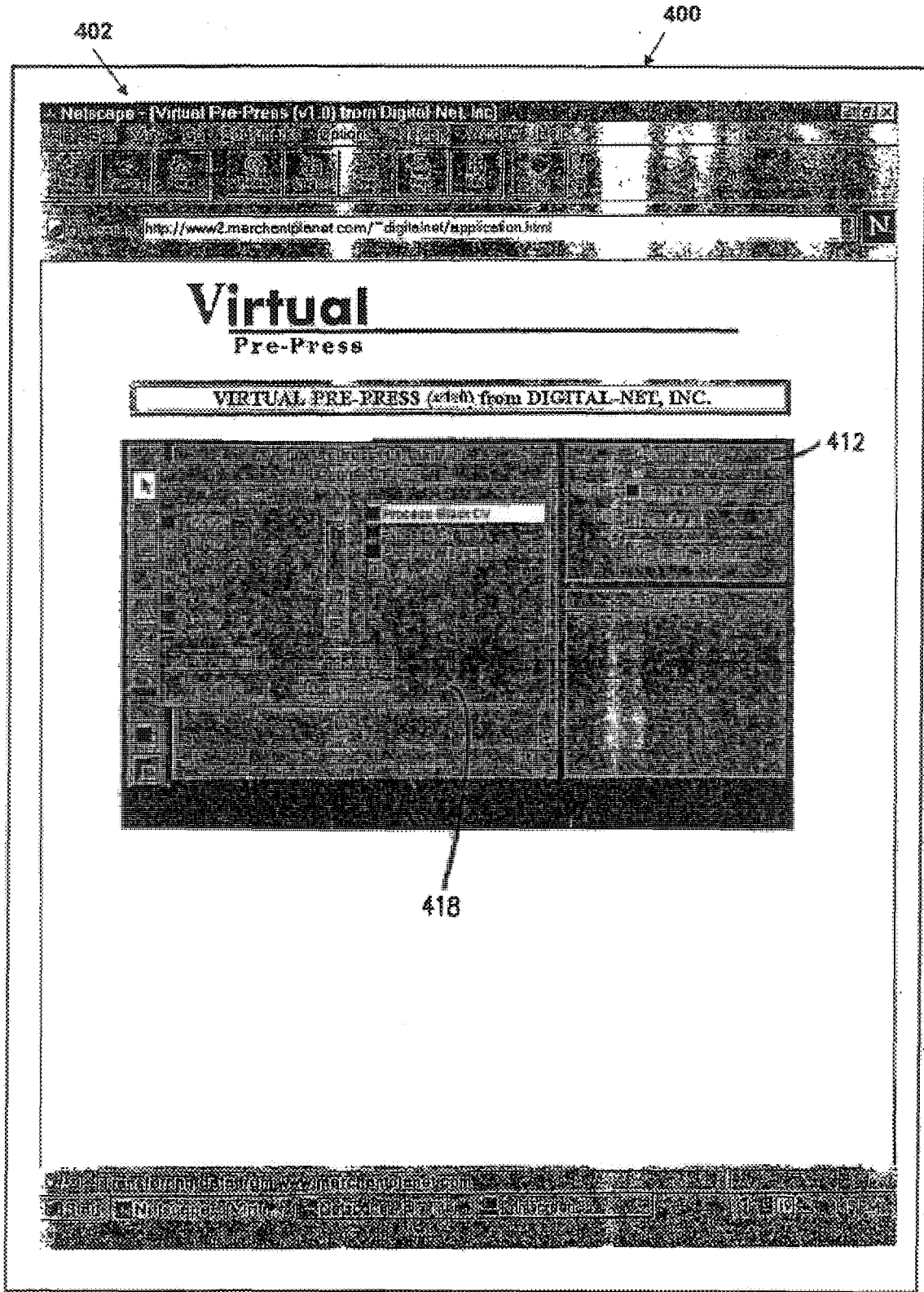


FIG. 4e

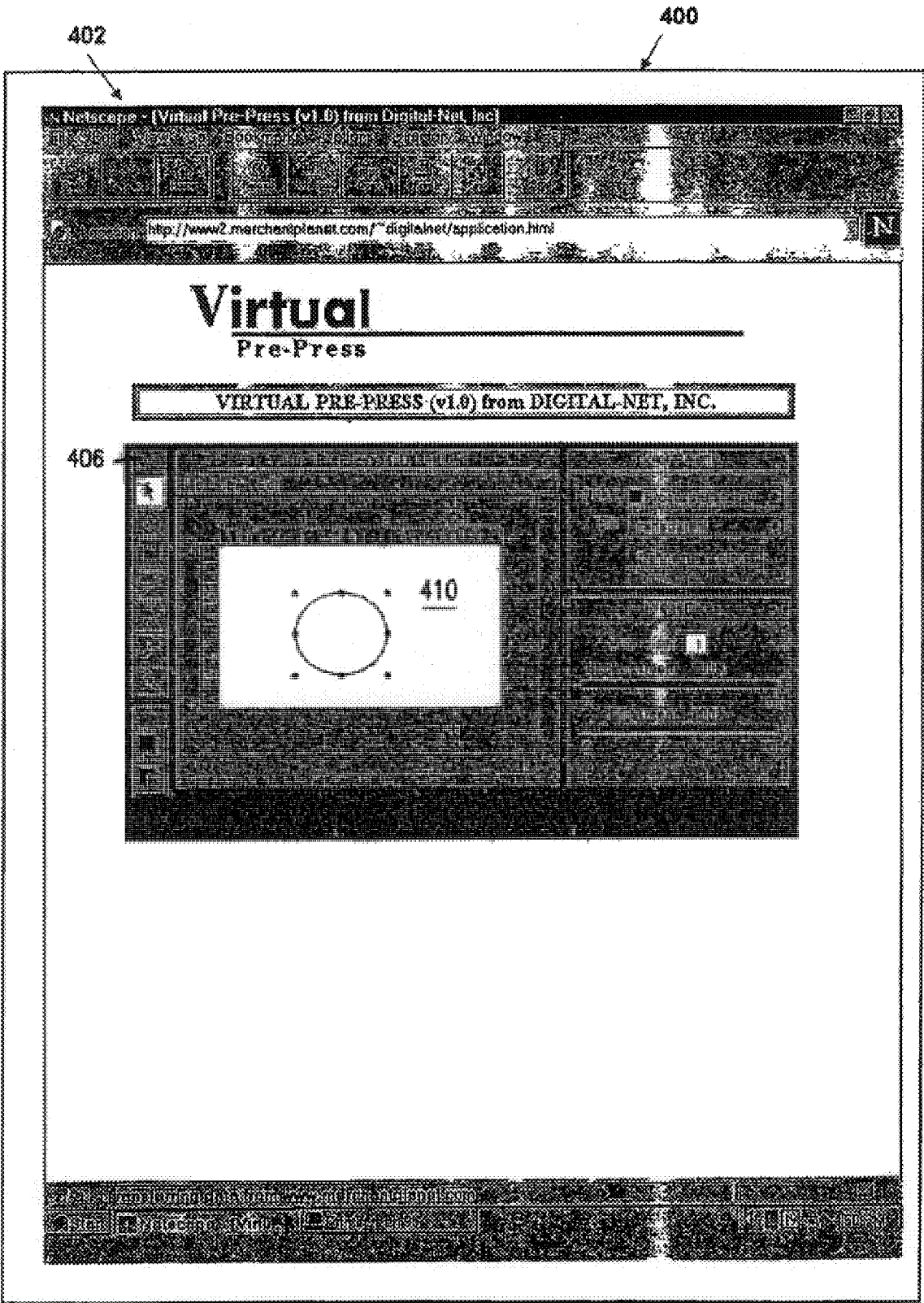


FIG. 4f

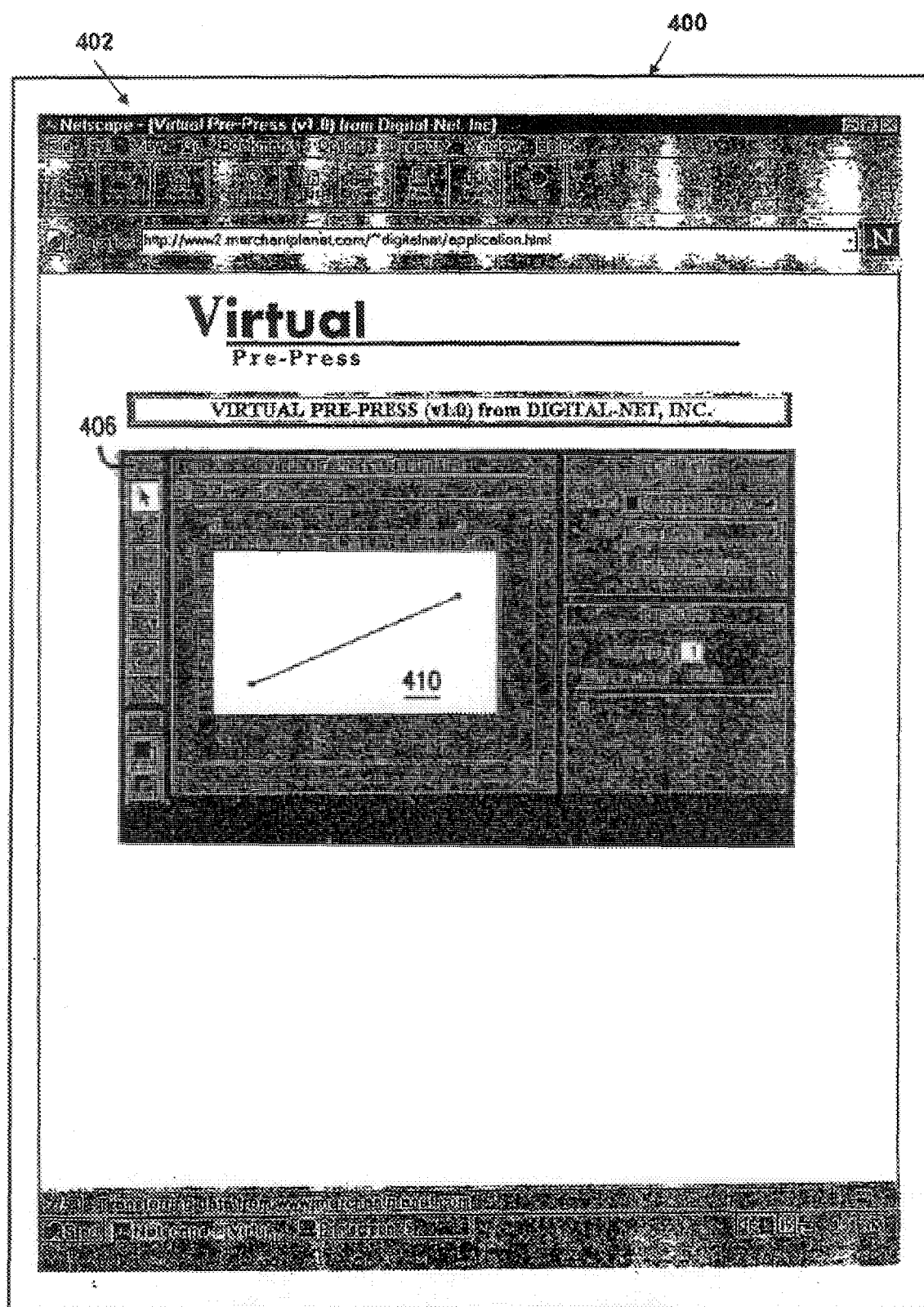


FIG. 4h

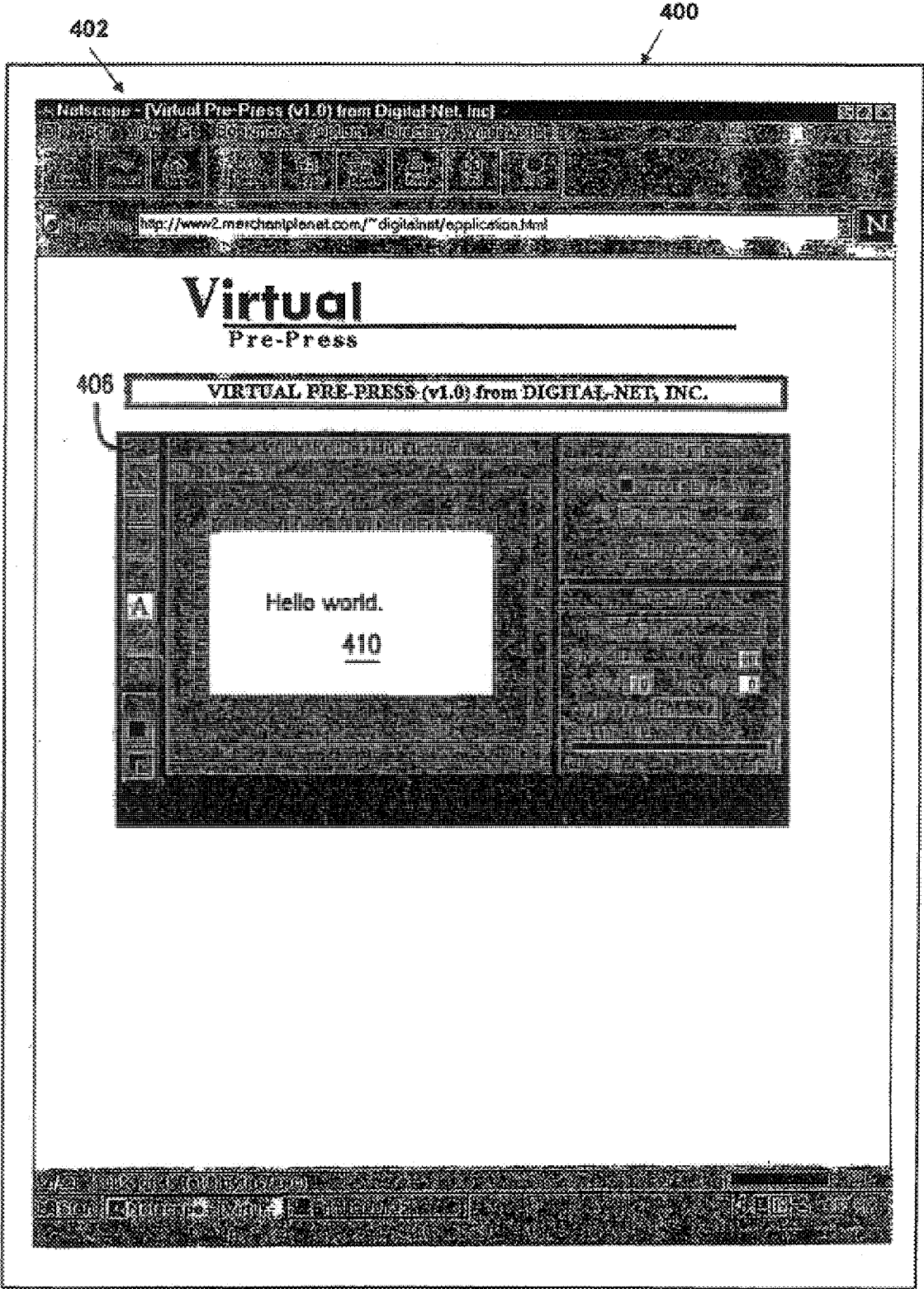


FIG. 4i

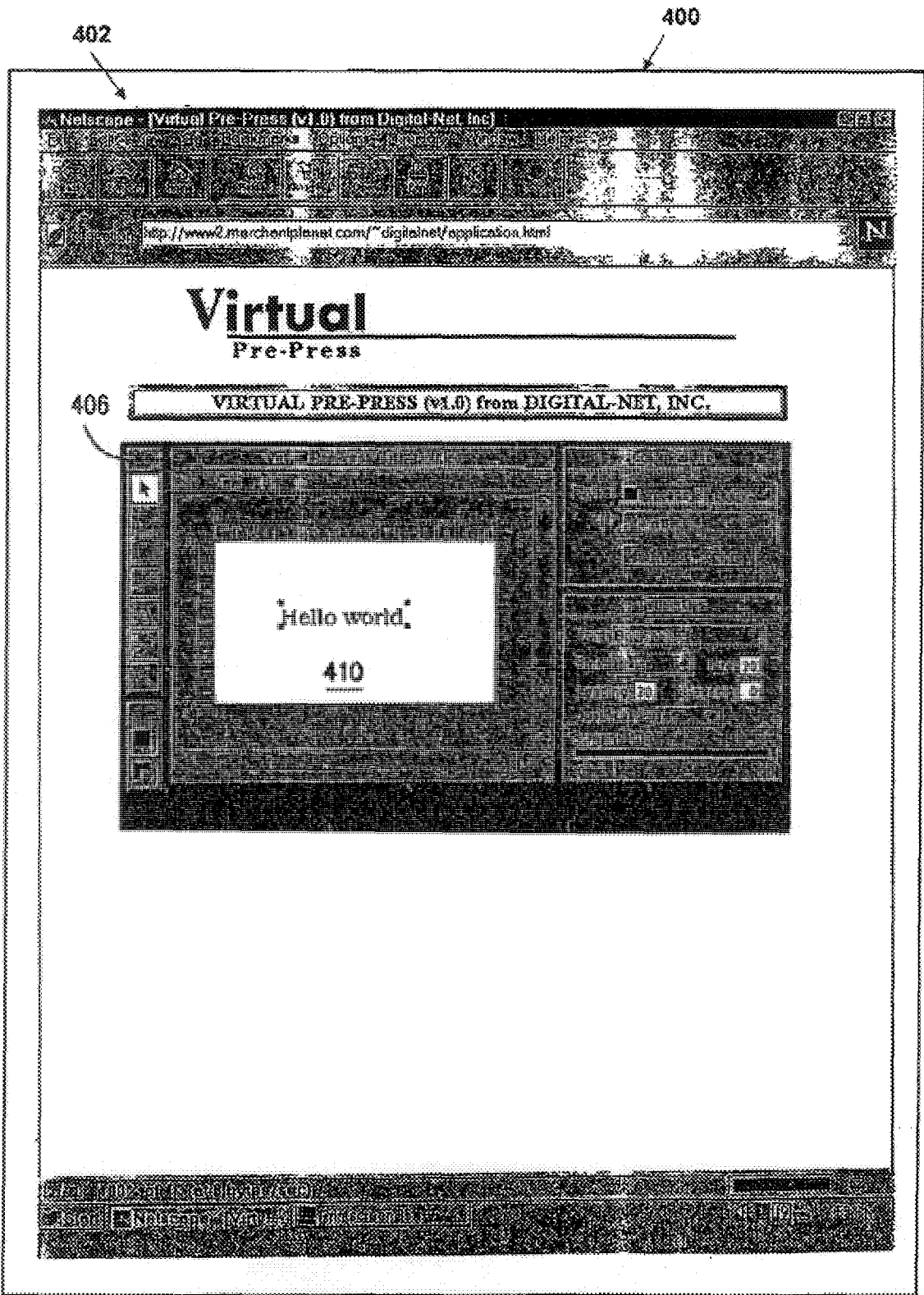


FIG. 4j

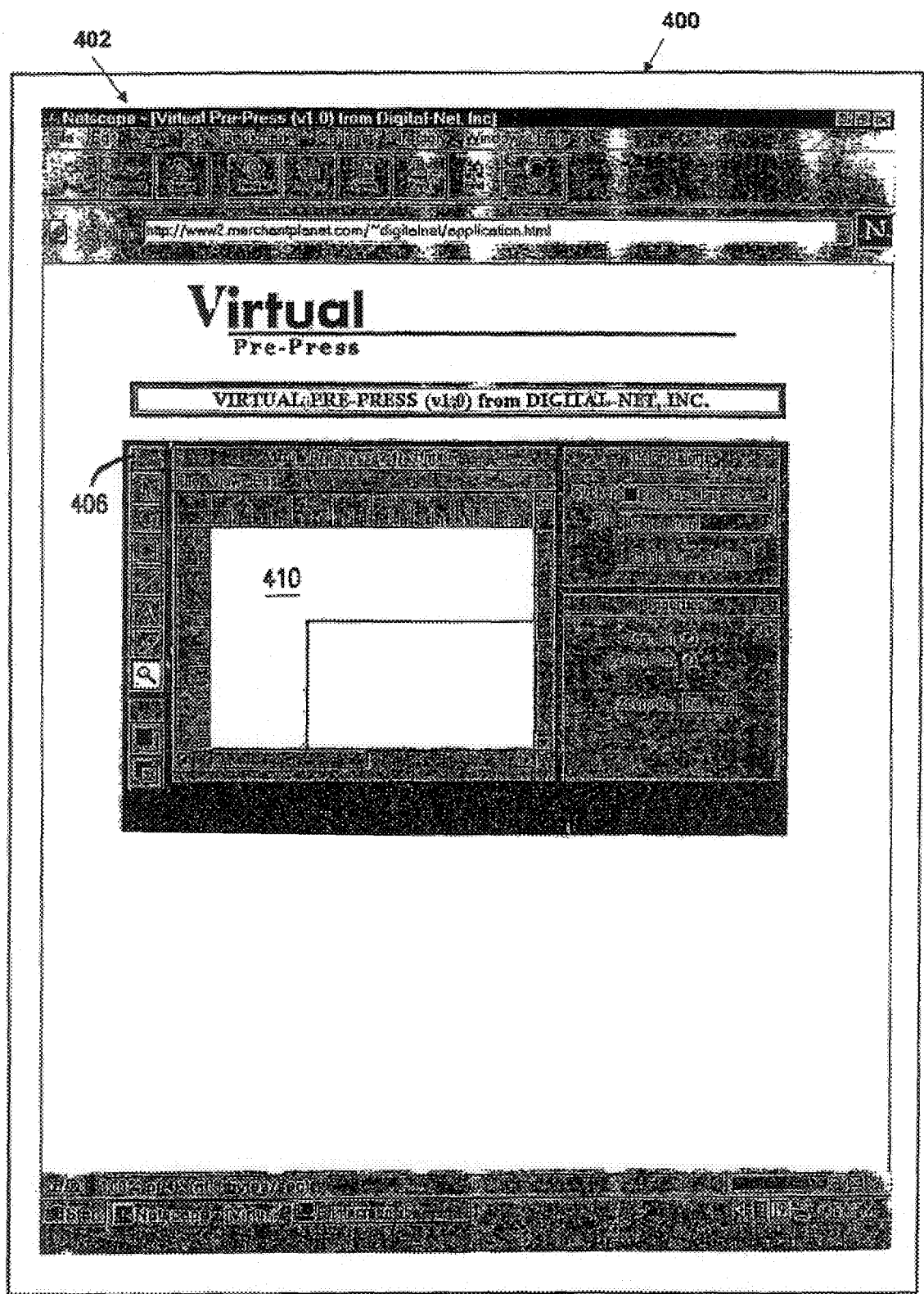


FIG. 4k

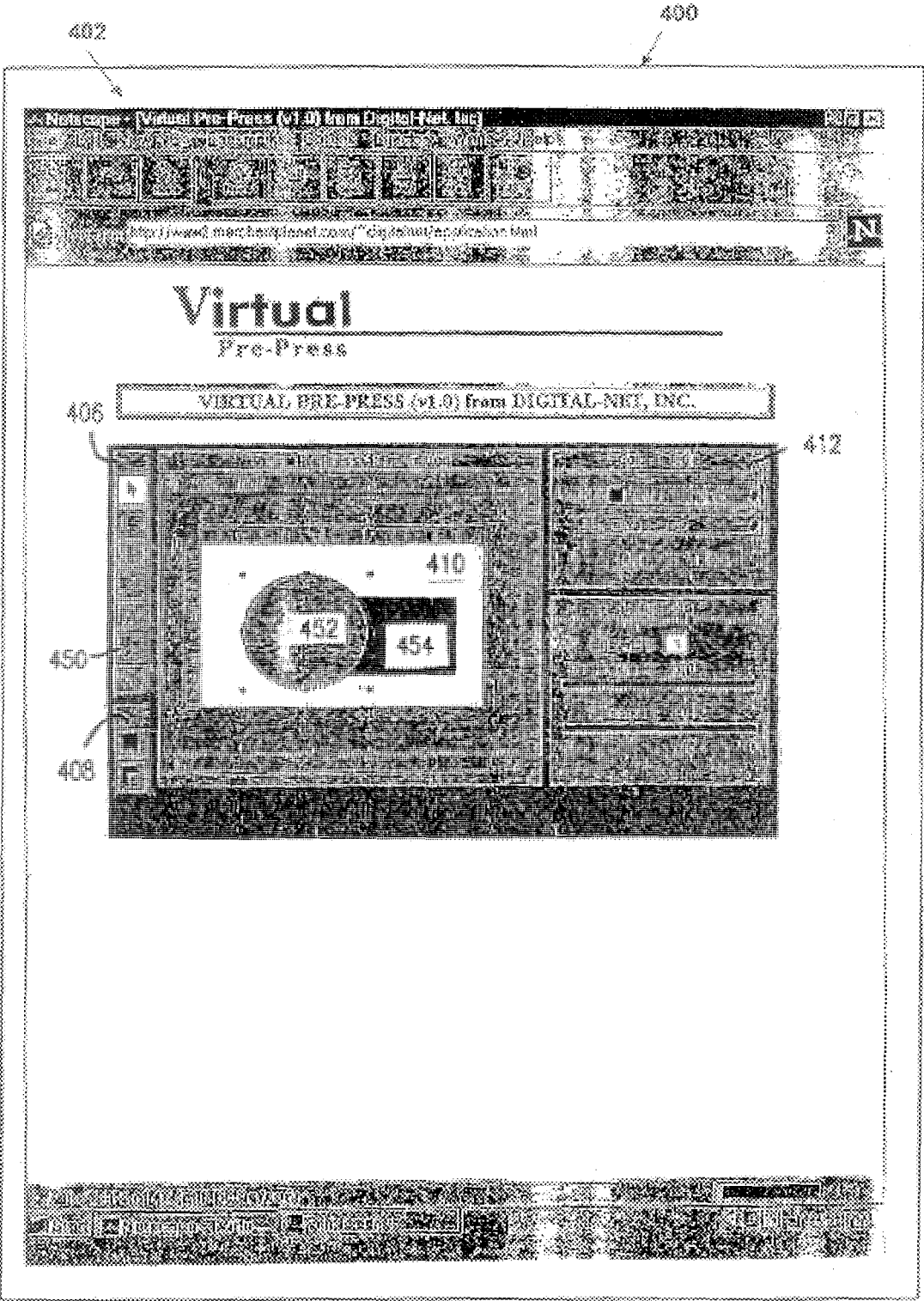


FIG. 41

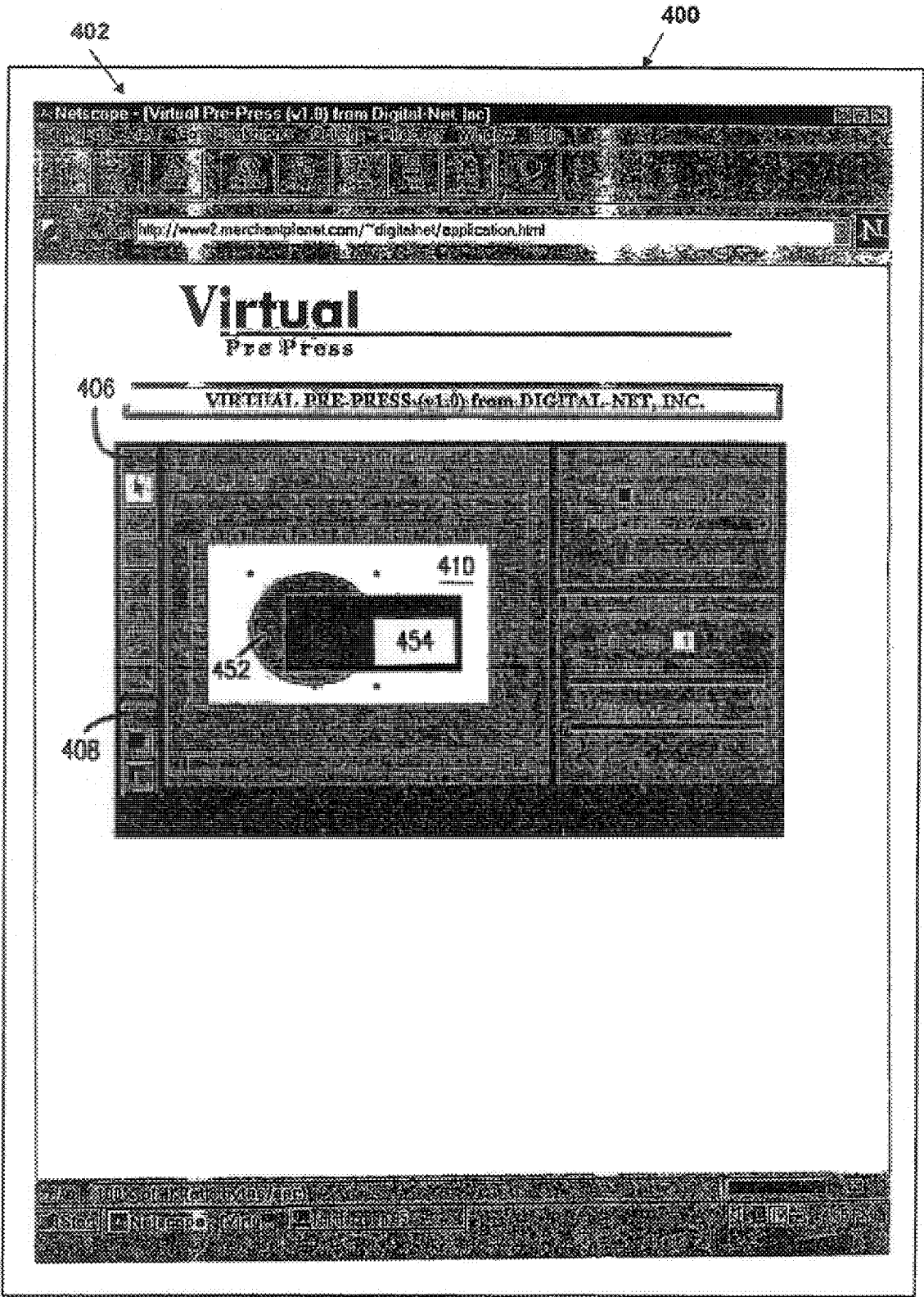




FIG. 4m

**GLOBAL INSURANCE COMPANY**
Virtual Pre-Press Business Card Ordering System

(Click here for [instructions](#))

**GLOBAL INSURANCE COMPANY**

FName MInitial LName

Title or Position

1234 Main Street, Suite 56

Anytown, MN 55000 USA

Tel [123] 456-7890

Fax [123] 456-0000

E-mail FNLName@globalins.com

503

Please Fill out the following form with information as you wish it to appear on your business card.

Leave fields blank that do not apply.

EMPLOYEE INFORMATION

First Name:

504

Middle Initial:

506

Last Name:

508

Title or Position:

510

CONTACT INFORMATION

502

500

FIG. 5a

A000145

Division/Dept.: 512

Address: 514

Suite/Number: 516
(optional)

City: 518

State: 520

Zip/Postal Code: 522

Email: 524
Email Format: initial.last@globalins.com

Please Fill in your Telephone numbers. Leave fields blank that do not apply.

Name:	Number:
<input type="text"/> Telephone <input type="checkbox"/>	(<input type="text"/>) <input type="text"/> - <input type="text"/> Ext: <input type="text"/>
<input type="text"/> Fax <input type="checkbox"/>	(<input type="text"/>) <input type="text"/> - <input type="text"/> Ext: <input type="text"/>
<input type="text"/> Empty <input type="checkbox"/>	(<input type="text"/>) <input type="text"/> - <input type="text"/> Ext: <input type="text"/>
<input type="text"/> Empty <input type="checkbox"/>	(<input type="text"/>) <input type="text"/> - <input type="text"/> Ext: <input type="text"/>

Preview Card

(Preview Card)

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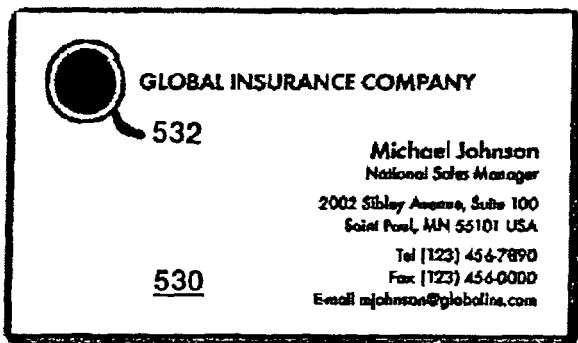
502

500

FIG. 5b

GLOBAL INSURANCE COMPANY
Virtual Pre-Press Business Card Ordering System

(Click here for [Instructions](#))



GLOBAL INSURANCE COMPANY

532

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Email mjohnson@globalins.com

530

Please review your card above. This preview above will be EXACTLY how your business cards will be printed. If there is a mistake correct the information in the form below and click on the "Preview" button to preview the card again. When you are satisfied with the information shown on the card GO TO THE BOTTOM OF THIS PAGE AND FILL IN YOUR ORDER AND DELIVERY INFORMATION then click on the "Submit Card Order" button.

EMPLOYEE INFORMATION

First Name:

Middle Initial:

Last Name:

Title or Position:

534

CONTACT INFORMATION

Division/Dept.:

Address:

Suite/Number:
(optional)

City:

State:

Zip/Postal Code:

Email:
Email Format: initial.last@globalins.com

534

Please Fill in your Telephone numbers. Leave fields blank that do not apply.

502

500

FIG. 5c

A000147

Name:

Telephone

Number:

(123) 456-7890

Ext:

(123) 456-0000

Ext:

Ext:

Ext:

ORDER & SHIPPING INFORMATION

PREVIEW

Number of Cards:

200

528

Type:

☒ Normal Inter-Office Delivery

☐ UPS 2nd Day Air

☐ UPS Next Day Air

Deliver to:

☒ Address on Business Cards.

☐ Alternative Address shown below.

First Name:

Last Name:

Address:

Address:

Suite/Number:

City:

State:

Zip/Postal Code:

VERIFICATION INFORMATION

Cost Center:

Employee I.D.#:

(Finish)

502

500

FIG. 5d

A000148

ADMINISTRATION AND SEARCH AND
REPLACE OF COMPUTERIZED PREPRESS

RELATED APPLICATIONS

This application is a continuation-in-part to the and coas-
signed application entitled "Computerized Prepress," filed
Dec. 2, 1997, Ser. No. 08/982,438 now abandoned, which is
hereby incorporated by reference.

FIELD OF THE INVENTION

This invention relates generally to print and print-
publishing prepress, and more particularly to such prepress
that is computerized.

BACKGROUND OF THE INVENTION

The publishing process typically requires several steps to
successfully complete a printed publication. Such steps
include planning and organizing, design and content
development, and prepress tasks where electronic files are
prepared to be reproduced with ink on paper. Broadly
speaking, prepress involves the preparation of all the elec-
tronic files that will be utilized to create a publication printed
with paper and ink. For a professional publication, this
usually involves utilizing an authoring program to create the
electronic version of the publication itself, and then using
another program (which may be a component of the author-
ing program), to translate this electronic version into a
format from which paper and ink copies of the publication
can be printed.

Portions if not all of the prepress process is difficult for
non-professionals to accomplish, however. While tools such
as Adobe PageMaker and Quark Express enable profession-
als to more easily create professional-looking documents,
most non-professionals find these computer programs overly
complex and difficult to use. That is, although the computers
sitting on the desks of such non-professionals are sufficiently
powerful to handle such tasks, the users themselves may not
be sufficiently knowledgeable to perform them. Furthermore,
even for experienced professionals, the pre-
press process is fraught with uncertainty; for example, the
professional must know the type of paper and ink output that
is desired a priori before translating an electronic version of
a document into a format from which paper and ink copies
can be printed. That is, even for experienced professionals,
the prepress process is not tightly integrated enough to attain
fast, easy and cost-effective print publishing.

SUMMARY OF THE INVENTION

The above-identified shortcomings as well as other short-
comings and problems are addressed by the present
invention, which will be understood by reading and studying
the following specification. In one embodiment, a comput-
erized prepress system includes four components: a server,
a first client, a second client, and a printer. The server has
stored thereon an authoring program to create a document
template, and a translation program to translate a document
based on the document template to a suitable prepress
format. The first client downloads the authoring program
from the server to create the document template, and then
uploads the document to the server. The second client
creates the document based on the document template,
which is uploaded to the server for translation to the suitable
prepress format. The printer receives the document as trans-
lated to the suitable prepress format from the server, such
that the printer may then print copies of the document.

More specifically, in one particular embodiment of the
invention, the authoring program is written in the program-
ming language Java, and the client, server and printer are
each connected to an intranet the Internet. Thus, an admin-
istrative user at the client needs only to run a web browser
program, such as Netscape Navigator, to access the server
and download and run the authoring program. This user
creates a document template. Another user then can use a
web browser program to create a document based on the
template. The server may then as required translate the
document into a suitable prepress format—such as
PostScript—and send it to the printer (e.g., as a MIME-
compliant electronic mail) for printing.

In different embodiments of the invention, computerized
methods, computerized systems, computers, and computer-
readable media of varying scope are described. Still other
and further embodiments, aspects and advantages of the
invention will become apparent by reference to the drawings
and by reading the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram of a computer in conjunction with
which embodiments of the invention may be implemented;
FIG. 2 is a diagram of a computerized prepress system in
accordance with one embodiment of the invention;
FIG. 3 is a diagram of a computerized prepress method in
accordance with one embodiment of the invention;
FIGS. 4a–4m are diagrams of screens displayed on a
display device of a computer in conjunction with one
embodiment of the invention; and,
FIGS. 5a–5d are diagrams of screens displayed on a
display device of a computer in conjunction with one
embodiment of the invention.

DETAILED DESCRIPTION OF THE
INVENTION

In the following detailed description of the preferred
embodiments, reference is made to the accompanying draw-
ings which form a part hereof, and in which is shown by way
of illustration specific preferred embodiments in which the
inventions may be practiced. These embodiments are
described in sufficient detail to enable those skilled in the art
to practice the invention, and it is to be understood that other
embodiments may be utilized and that logical, mechanical
and electrical changes may be made without departing from
the spirit and scope of the present invention. The following
detailed description is, therefore, not to be taken in a limiting
sense, and the scope of the present invention is defined only
by the appended claims.

Referring first to FIG. 1, a diagram of a computer in
conjunction with which embodiments of the invention may
be implemented is shown. Computer 110 is operatively
coupled to display device 112, pointing device 114, and
keyboard 116. Computer 110 includes a processor
(preferably, an Intel Pentium processor), random-access
memory (RAM) (preferably, at least thirty-two megabytes),
read-only memory (ROM), and one or more storage devices,
such as a hard disk drive, a floppy disk drive (into which a
floppy disk can be inserted), an optical disk drive, and a tape
cartridge drive. The memory, hard drives, floppy disks, etc.,
are types of computer-readable media. The hard drives and
floppy disks are more specifically types of nonvolatile store
media. Computer programs running on the computer are
executed by the processor from the computer-readable
media. The invention is not particularly limited to any type

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of computer **110**. Computer **110** preferably is a PC-compatible computer or a MacOS-compatible computer. The construction and operation of such computers are well known within the art.

Furthermore, computer 110 may be communicatively connected to the Internet via a communication device, any particular manner by which the invention is not limited to, and which is not shown in FIG. 1. Internet connectivity is well known within the art. In one embodiment, the computer includes a communication device that is a modem and corresponding communication drivers to connect to the Internet via what is known in the art as a “dial-up connection.” In another embodiment, the computer includes a communication device that is an Ethernet or similar hardware (network) card to connect to a local-area network (LAN) that itself is connected to the Internet via what is known in the art as a “direct connection” (e.g., T1 line, etc.).

Computer **110** also has at least one operating environment running thereon, each desirably providing a graphical user interface including a user-controllable pointer. Such operating environments include operating systems such as versions of the Microsoft Windows and Apple MacOS operating systems known in the art. The invention is not limited to any particular operating environment, however, and the construction and use of such operating environments are well known within the art. Computer **110** also desirably has at least one web browser application program running with at least one operating environment, to permit users of computer **110** to access intranet or Internet world-wide-web pages as addressed by Universal Resource Locator (URL) addresses. Such browser application programs include Netscape Navigator and Microsoft Internet Explorer.

Display device **112** permits the display of information, including computer, video and other information, for viewing by a user of the computer. The invention is not limited to any particular display device **112**. Such display devices include cathode ray tube (CRT) displays (monitors), as well as flat panel displays such as liquid crystal displays (LCD's). Pointing device **114** permits the control of the screen pointer provided by the graphical user interface of operating systems such as versions of Microsoft Windows. The invention is not limited to any particular pointing device **114**. Such pointing devices include mice, touch pads, trackballs, remote controls and point sticks. Finally, keyboard **116** permits entry of textual information into computer **110**, as known within the art, and the invention is not limited to any particular type of keyboard.

Referring next to FIG. 2, a diagram of a computerized system in accordance with one embodiment of the invention is shown. Each of first client computer **200**, second client computer **201**, server computer **202**, and printer computer **204** is a computer, such as that shown in and described in conjunction with FIG. 1, although the invention is not so limited. Thus, each of first client computer **200**, second client computer **201**, server computer **202**, and printer computer **204** has a processor, a computer-readable medium from which computer programs are executed by the processor, and a communications device, such as a network card, or a modem. First client computer **200**, second client computer **201**, server computer **202**, and printer computer **204** are communicatively coupled to one another via the Internet **206**. Note that in one embodiment, Internet **206** is replaced by an extranet or an intranet, as known within the art, and as may be found in corporate and other environments.

Server computer **202** is desirably an extranet, intranet or Internet world-wide-web server, as known in the art, such

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that it has assigned thereto a Universal Resource Locator (URL) address to permit client computer **200** and client computer **201**, as well as other computers, to access the server. The invention is not particularly limited to a type of server **202**. Typical examples include those running software available from Netscape, Microsoft, Apache, NCSA, and others. Server **202** is also not limited to running on a particular operating system (OS); common operating systems including Microsoft Windows **95**, Microsoft Windows NT, Apple MacOS and UNIX.

Server computer **202** has stored thereon authoring program **208**. Authoring program **208** is downloaded from server **202** by and to client **200** through the Internet **206**, although this is more directly represented by arrow **210**. Authoring program **208** desirably is run within operating environment **212** running on client **200**. Such an operating environment **212** includes those provided by extranet, intranet and Internet world-wide-web browser programs such as Microsoft Internet Explorer and Netscape Navigator. For example, in one embodiment, authoring program **208** is coded in the programming language Java, such that program **208** is a Java applet that is downloaded through the Internet by client **200**, and runs within an operating environment **212** that is a browser program that is Java capable. In other embodiments of the invention, authoring program **208** may be coded in the programming language Perl, C, C++, ActiveX, or other programming languages; the invention is not so limited.

Authoring program **208** is used within first client computer **200** to create document template **214**. Document template **214** is a document created by the administrative user of computer **200**, using authoring program **208**. The invention is not limited to any type of authoring program **208**; in one embodiment of the invention, authoring program **208** is that which is shown in and will be described in conjunction with FIGS. **4a–4m**.

Once document template **214** has been created at first client **200**, it is uploaded to server **202** for saving at the server, through the Internet **206**. Document template **214** is saved at the server **202** on a non-volatile storage device of the server, such as a hard disk drive. It is saved in an internal file format that maximizes efficiency in the storage of the document.

Furthermore, the second client computer **201** creates the document **215** from the document template **214**. It does this by downloading the document **215** from server **202** through the Internet **206**. The second client computer also has an operating environment running thereon, not shown in the figure, comparable to the operating environment **212** of the first client computer **200** includes those provided by extranet, intranet and Internet world-wide-web browser programs such as Microsoft Internet Explorer and Netscape Navigator.

The document template **214** may have fixed information, such as logos, images, fonts, and positions of text information, and the logos and images. The document **215** is created in one of at least two ways. First, the user of the second client computer **201** may also download the authoring program, and use it to create the document **215**, within the constraints allowed by the document template **214**. Second, the user of the second client computer **201** may be queried to submit information for a form having tags corresponding to criteria of the document template **214**. For example, the criteria may include the user's first name, last name, phone number, etc. The user types in his or her information corresponding to these criteria. A search and

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replace is then performed, replacing the criteria with the information entered by the user. The tags of the form indicate which information is to replace which criteria. In one embodiment, the form is an HTML form, which can be modified via a web browsing program as known in the art. As to the use of an authoring program by this (end) user, the authoring program may be as described later in conjunction with FIGS. 4a-4m. As to the use of entering in information into a form by the end user, the entering of information may be as described later in conjunction with FIGS. 5a-5d.

The invention is also not limited to any particular document 214. In one embodiment of the invention, document 214 is a business card; however, other documents amenable to the invention include self-adhesive notes (such as those available from 3M, Inc., as Post-It notes), letterheads, pamphlets, brochures, envelopes, etc.

Once document **215** has been created, it is uploaded to server **202** for saving at the server, through the Internet **206**. Document **214** is saved at the server **202** on a non-volatile storage device of the server, such as a hard disk drive. It is saved in an internal file format that maximizes efficiency in the storage of the document. Once the document **215** is ready to be sent to a printer for printing and publication (as may be indicated by client **200** to server **202**), server **202** runs translation program **218** on document **215** (program **218** being stored on server **202**) as saved in the internal file format to generate a translated document **220**, as represented by arrow **222**. The translation program **218** translates document **214** into a file format suitable for prepress, such as PostScript. Other file formats suitable for prepress include XML, HTML, PDF, and PostScript extreme, as known within the art. Translation program **218** performs any color separations, or other operations as required by the suitable prepress file format. The invention is not limited to any particular suitable prepress file format.

Server **202** then transmits the translated document **220** through the Internet **206** to printer **204**, as more directly represented by arrow **224**. In one embodiment, this is accomplished by server **202** attaching the translated document **220** as an attachment file to a MIME-compliant electronic mail, which may then be sent to the electronic mail address of printer **204**. However, the invention is not limited to any manner by which such transmission occurs. Once the printer **204** has received the translated document **220**, document **220** may then be printed and published as needed.

Referring next to FIG. 3, a flowchart of a computerized method according to an embodiment of the invention is shown. This method is inclusive of the steps or acts required to be taken by a client computer, a server computer, and a printer computer to create a document at the client computer, for translation by the server computer, and for printing at the printer computer, in accordance with one embodiment of the invention. These steps or acts are performed in accordance with one or more computer programs, such as authoring programs, and translation programs, as have been described in conjunction with FIG. 2. The embodiment of the invention described in conjunction with FIG. 3 refers to the situation where the client, the server and the printer are communicatively coupled to one another through the Internet, where the client is running a web browser program and the server is a web server; however, the invention is not so limited.

In step **300**, the first client computer accesses the web site of the web server, as referenced by a URL address, through its web browser program, and logs onto the web server.

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Logging on to the server desirably includes submitting user information regarding the administrative user at the client, such as the a user's name and password. Once the server has received this information, it authenticates the administrative user, looking up the user information submitted to determine whether such a user exists, and whether the password for the user is correct. Authentication also includes associating the user with a particular directory on the server computer (e.g., on which to store the documents created by the user), a set of defaults regarding options available to the user within the authoring program (e.g., fonts, colors, images and commands), and an authorization level. The authorization level dictates what the user is permitted to do within the program; for example, the "administrator" may be permitted to access anyone's documents within the administrator's work group.

In step 302, the first client downloads the authoring program from the server. As has been described, in one embodiment the authoring program is coded in Java, such that the program is a Java applet running within the browser program of the client. In step 304, the first client then uses the authoring program to create a document template, such as a business card, a letterhead, etc. The creation of the document template involves determining which logos and images are to be fixed in any document created therefrom, as well as the font type and sizes, as well as position of allowable text entry, for any document created therefrom. Once the document template has been created, the first client selects a save command, which uploads the document template to the server, where it is saved, in step 306.

In 307, a document is created based on the document template. This involves a second client computer accessing the web site of the web server, through its web browser program, and logging onto the web server as has been described. The user of the second client is then authenticated at the server computer. The second client can create the document based on the document template in at least one of two ways. First, the second client can download the authoring program, as has been described, from the server program, and using the authoring program to create a document consistent with and based on the document template. This means that the user of the second client is only able to enter in and change information present as prescribed by the document template. For example, the logo and any images of the document template may be fixed in the template, such that the user in creating his or her document may not alter, move or delete them. As another example, the document template may indicate what information can be entered by the user, and where this information is to be positioned on the document—such as the user's name, telephone number, address, title, etc. The document template may also fix the font type and size of this textual information.

A second way a client can create the document based on the document template is to download a form, such as an HTML form, through its web browser program, where the form has tags corresponding to criteria in the document template. The tags may be HTML tags, for instance. The criteria may indicate information such as the user's first name, middle initial, last name, telephone number, company name, fax number, address, title, etc. The user through the web browser program then enters in information corresponding to the tags of the HTML form. The criteria in the document template are then replaced with the corresponding information entered to create the document based on the document template.

Once the document has been created, the second client selects a save command, which uploads the document to the

server, where it is saved. Furthermore, once the document is in final form according to the user, the user selects a print command in step 308. This signals the server to translate the document into a suitable prepress format, such as PostScript, or another format as previously described, and send the document to the printer computer in step 310, such as an electronic mail attachment. Thus, the internal format in which the document is saved in step 306 is different than the format to which the document is translated in step 308 and sent to the printer in step 310. Once the printer receives the document, the document may then be printed and published.

Referring next to FIGS. 4a-4m, diagrams of screens displayed on a display device of a computer in conjunction with one embodiment of the invention are shown. More particularly, the diagrams are screens regarding an authoring program according to one embodiment of the invention. The authoring program may be for either an administrative user to create a document template, or an (end) user to modify a document template as so permitted to create a document. Referring first to FIG. 4a, within display device 400 is operating environment window 402 within which the authoring program runs. Specifically, operating environment window 402 is part of a web browser program, such as Netscape Navigator. The authoring program is a Java applet that runs within the web browser. The authoring program includes six primary areas: menu bar 404, tool bar 406, orientation bar 408, work area 410, color palette area 412, and properties area 414. The user of the computer utilizes tool bar 406, orientation bar 408, menu bar 404, color palette area 412, and properties area 414 as tools to create a document within work area 410. Work area 410 is sized in accordance with the type of document to be created. For example, as shown in FIG. 4a, the type of document to be created is a business card. The properties area 414 shows commands that may be used in conjunction with the currently selected tool from tool bar 406.

Clicking "file" on menu bar 404 drops down the file menu, as shown in FIG. 4b. The file menu permits a user to create a new document, such as a business card, letterhead, or envelope, insert an image, open or save a document, revert the current work area to the document as most recently saved, or print to a file (i.e., cause the translation program to be run). The images are saved as files on the server in a particular format, such as encapsulated PostScript, TIFF, GIF, and JPEG. Desirably, the images have a maximum resolution of 1:1, to minimize the size of the encapsulated PostScript file (or file in another format). Opening or saving a document retrieves or stores a document, respectively, on a computer-readable medium of the server. Printing the document to a file causes the translation program to run, such that the file is translated to a format suitable for prepress, and then sent to the printer.

Clicking "View" on menu bar 404 drops down the view menu, as shown in FIG. 4c. The view menu permits a user to call up different tools of the authoring program, which may have become hidden from view (e.g., by previous user choice), or previously unselected by the user. Selecting "Toolbar" calls up tool bar 406. Selecting "Move to Front/Move to Back" calls up orientation bar 408. Selecting "Color Palette" brings up color palette area 412. Selecting "Properties" brings up properties area 414. Selecting "Rulers" brings into view rulers 416 and 414, each on a side of work area 410. Finally, selecting "Grid" causes a grid to be superimposed on work area 410 (not shown in FIG. 4c).

Clicking "Edit" on menu bar 404 drops down the edit menu, as shown in FIG. 4d. The edit menu permits a user to cut, copy, paste selected elements (i.e., objects) within work

area 410, or select all the elements, such that the user is then able to cut, copy, or paste all the elements. The cut, copy, and paste commands thus operate as known to those of ordinary skill within the art.

Color palette area 412 is described in conjunction with FIG. 4e. The user is able to select both stroke and fill color from a menu of predetermined colors. The stroke color refers to the color in which the boundaries of a particular object is drawn within work area 410 (not shown in FIG. 4e), while the fill color refers to the color inside the boundaries of the particular object within work area 410. Colors may be added within the menu of predetermined colors by defining a new color, accomplished by pressing the define new colors button, which brings up window 418. Within the window, the user is able to select new colors, which are desirably the entire palette of colors available from Pantone, as known within the art. In other embodiments, colors are selected from palettes of colors available from Toyo, Focaltone, or Tru-match, as also known within the art.

Referring next to FIG. 4f, selecting the arrow tool on tool bar 406 allows the user to select an object within work area 410. Selecting the circle tool on tool bar 406 enables a user to create a circle or oval, such as that shown in work area 410 in FIG. 4f. Referring next to FIG. 4g, selecting the rectangle tool on tool bar 406 permits a user to create a rectangle, such as that shown in work area 410 in FIG. 4g. Referring next to FIG. 4h, selecting the line tool on tool bar 406 enables a user to create a line, such as that shown in work area 410 in FIG. 4h. In the creation of a circle, rectangle, or line, the authoring program performs the creation of the particular object (e.g., the circle, the rectangle, or the line) itself, and does not consult the server to determine the manner in which the object is to be created.

Conversely, selecting the text tool on tool bar 406 causes the authoring program to first allow the user to input the text to be entered on work area 410, displaying the text in a rough manner. Next, the authoring program sends the text to the server, which translates the text into an image, desirably an image in GIF format and having a maximum resolution of 4:1, which is then sent back to the client for display on work area 410. (Other image formats include JPEG and TIFF; the invention is not so limited.) This is shown in conjunction with FIGS. 4i and 4j. In FIG. 4i, the user has entered the text string "Hello world" but has not yet pressed return; therefore, the text string is shown in a rough manner. Once the user presses return, the client sends the text string to the server for conversion to an image, which is then sent to the client and displayed on work area 410, as is shown in FIG. 4j. The reason this is accomplished is that different computers have different font generation engines, while the authoring program is desirably a what-you-see-is-what-you-get (WYSIWYG) program, showing the user on the display device exactly what will be printed at the printer.

Referring next to FIG. 4k, selecting the zoom tool on tool bar 406 enables a user to zoom in and out on the document within work area 410, as is shown in FIG. 4k. Referring to FIG. 4l, selecting the color picker tool (tool 450) on tool bar 406 enables a user to set a color within color palette area 412 to that of a current object within work area 410. For example, clicking within object 452 in work area 410 while using the color picker tool sets the current fill color to that of the fill color of object 452. This enables users to precisely set a color to an already existing color within the document, which is especially advantageous in situations where there are multiple shades of one color in a document, which may be difficult to discern.

Selecting the top icon within orientation bar 408 brings the currently selected object within area 410 to the front of

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other objects. For example, as shown in FIG. 4l, selecting the top icon while object 452 is selected (as denoted by dots outlining the rectangular boundary of the object) brings object 452 to the front, over the other object within the work area (e.g., object 454). Conversely, selecting the bottom icon within orientation bar 408 moves the currently selected object within area 410 to the back of other objects. For example, as shown in FIG. 4m, selecting the bottom icon while object 452 is selected moves object 452 to the back, behind the other object within the work area (e.g., object 454).

It is noted that with respect to the creation of a document based on a document template, the diagrams of screens of FIGS. 4a-4m relate to only one way by which a user can create such a document based on a template. The invention is not so particularly limited. Another way is shown by reference to FIGS. 5a-5d, which are diagrams of screen displayed on a display device of a computer in conjunction with one embodiment of the invention are shown. More particularly, the diagrams are screens regarding the filling in of forms to create a document from a document template, according to one embodiment of the invention.

Referring first to FIG. 5a, within display device 500 is operating environment window 502. Specifically, operating environment window 502 is part of a web browser program, such as Netscape Navigator. The operating environment window 502 has loaded a web page off a network such as the Internet. The web page shows a document template 503. The user is then queried to enter information regarding criteria of the document template 503, such as Fname (first name), Initial (middle initial), etc. Thus, the user enters his or her first name in field 504, middle initial in field 506, last name in field 508, and title or position in field 510. Each field corresponds to a tag, such as an HTML tag, within the web page, which is not shown in FIG. 5a. Referring next to FIG. 5b, the user is queried to enter in more information regarding the criteria of the document template. Thus, the user enters his or her division in field 512, address in field 514, suite/number in field 516 (optional), city in field 518, state in field 520, zip/postal code in field 522, and email address in field 524. Furthermore, the user is able to enter various phone numbers in fields 526.

Once the user has entered in this information, button 528 is clicked. This causes display of the screen shown in FIG. 5c, where the document template has been changed to a document 530 indicative of the information entered in by the user. It is noted that the user only is able to enter in textual information as dictated by the document template. The user is not, for example, permitted to change the logo 532, nor other information, such as the company name, and the font type and size in which the various textual information is shown on the document 530. In this manner, the document template provides a manner by which an administrative user can define the overall characteristics of a given design of a document, such that other users can input information to be formatted in accordance with and as allowed by the document template, but cannot change those characteristics that the document template does not permit changing of. Thus, a consistent "look" exists over all the documents created from a given template, even though all those documents may vary in some ways from one another. If the user is not satisfied with the document 530 in FIG. 5c, he or she may reenter or change information in the various fields 534 of FIG. 5c and FIG. 5d, and relick button 528 to see the changed information in the document 530.

Computerized prepress has been described. Although specific embodiments have been illustrated and described

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herein, it will be appreciated by those of ordinary skill in the art that any arrangement which is calculated to achieve the same purpose may be substituted for the specific embodiments shown. This application is intended to cover any adaptations or variations of the present invention. For example, the invention is fully intended to cover databases as well as dynamic directories, such that the term directory may be interpreted to encompass any database amenable to the invention in such an embodiment of the invention. Therefore, it is manifestly intended that this invention be limited only by the following claims and equivalents thereof.

We claim:

1. A computerized prepress method comprising:

storing on a server computer system a computerized prepress software system, wherein the prepress software system includes a document authoring program downloadable from the server to a client computer, the program having one or more authoring tools used to create an electronic document;

wherein the downloaded program executes in a web browser of the client computer and displays the electronic document in WYSIWYG form to the user of the client computer, and at least one of the authoring tools has one or more functions that allows a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

the software system further configured to provide that at least one of the authoring tools is adapted to create an electronic document using the client computer, and that the electronic document is uploaded to the server computer system in a form allowing a translation component to create a prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need not be concerned with creating a prepress format file, and further so that the authored electronic document can be processed into a prepress format file; downloading the authoring program from the server computer system to the client computer;

the user using at least one authoring tool of the downloaded program at the client computer to create an electronic document;

uploading the electronic document to the server computer system.

2. The computerized prepress method of claim 1, wherein the client computer and the server computer are communicatively coupled to one another through the Internet.

3. The computerized prepress method of claim 1, wherein the client computer and the server computer are communicatively coupled to one another through an intranet.

4. The computerized prepress method of claim 1, wherein the client computer and the server computer are communicatively coupled to one another through an extranet.

5. The computerized prepress method of claim 1, comprising the additional steps of sending log-on information regarding a user from a client computer to the server computer systems over the Internet and authenticating the user at the server computer system.

6. The computerized prepress method of claim 1, wherein the authoring program downloaded from the server computer system to the client computer is coded in a language selected from the group essentially comprising Perl, Java, C++, C, and ActiveX.

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7. The computerized prepress method of claim 1, wherein the electronic document is selected from the group essentially comprising a business card, a letterhead, an envelope, and a brochure.

8. The computerized prepress method of claim 1, wherein the authoring program comprises a color plate area to select a color from palette of colors.

9. The computerized prepress method of claim 8, wherein the palette of colors comprises the palette of colors available from one selected from the group essentially comprising Pantone, Toyo, Focaltone, and Tru-Match.

10. The computerize prepress method of claim 1, wherein using one of the authoring tools of the authoring program at the client computer to create an electronic document comprises sending desired text from the client computer to the server computer system for translation into an image and sending the image from the server computer system back to the client computer.

11. The computerized prepress method of claim 10, wherein the image is in a format selected from the group essentially comprising GIF, TIFF, and JPEG.

12. The computerized prepress method of claim 10, wherein the image has a maximum resolution of 4:1.

13. The computerized prepress method of claim 1, wherein the document includes one or more images, at least one of the images being in a format selected from the group essentially comprising encapsulated PostScript, TIFF, GIF, and JPEG.

14. The computerized prepress method of claim 13, wherein at least one of the images has a maximum resolution of 1:1.

15. The computerized prepress method of claim 1, wherein the different format file is selected from a group essentially comprising PostScript, HTML, PDF, and PostScript Extreme.

16. The computerized prepress method of claim 1, further including distributing the prepress format file to a location remote from the server computer system for printing at the remote location.

17. The computerized prepress method of claim 16, wherein the electronic mail is MIME-compliant.

18. A computerized prepress system comprising:

a server having stored thereon a computerized prepress software system including a document authoring program downloadable from the server to a client computer, the program having one or more authoring tools used to create an electronic document;

wherein the downloaded program executes in a web browser of the client computer and displays the electronic document in WYSIWYG form to the user of the client computer, and at least one of the authoring tools has one or more functions that allows a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

the software system further configured to provide that at least one of the authoring tools is adapted to create an electronic document using the client computer, and that the electronic document is uploaded to the server computer system in a form allowing a translation component to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG form displayed to the user on the client computer, and so that the user need not be concerned with creating a prepress format file.

19. The computerized prepress method of claim 18, wherein the server, the client and the printer are communicatively coupled to one another through the Internet.

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20. The computerized prepress method of claim 18, wherein the server, the client and the printer are communicatively coupled to one another through an intranet.

21. The computerized prepress method of claim 18, wherein the server, the client and the printer are communicatively coupled to one another through an extranet.

22. The computerized prepress system of claim 18, wherein the server comprises an Internet world-wide-web server.

23. The computerized prepress system of claim 18, wherein the server comprises an intranet world-wide-web server.

24. The computerized prepress system of claim 18, wherein the server comprises an extranet world-wide-web server.

25. The computerized prepress system of claim 18, wherein the authoring program runs on the client in an Internet world-wide-web browser program.

26. The computerized prepress system of claim 18, wherein the browser program is selected from the group essentially, comprising Netscape Navigator and Microsoft Internet Explorer.

27. The computerized prepress system of claim 18, wherein the authoring program runs on the client in an intranet world-wide-web browser program.

28. The computerized prepress system of claim 18, wherein the authoring program runs on the client in an extranet worldwide-web browser program.

29. The computerized prepress system of claim 18, wherein the authoring program is coded in a language selected from the group essentially comprising Perl, Java, C++, C, and ActiveX.

30. The computerized prepress system of claim 18, wherein the electronic document is selected from the group essentially comprising a business card, a letterhead, an envelope, and a brochure.

31. The computerized prepress system of claim 18, wherein the authoring program comprises a color palette area to select a color from a palette of colors.

32. The computerized prepress system of claim 18, wherein the suitable prepress format file is selected from a group essentially comprising PostScript, HTML, PDF, and PostScript Extreme.

33. The computerized prepress system of claim 18, wherein the printer receives the document from the server via an electronic mail to which the document is included as an attachment.

34. A client computer comprising:

a processor;

a computer-readable medium;

a communications device;

an operating environment program comprising a web browser executed by the processor from the medium; and

an authoring program having one or more authoring tools used to create an electronic document, the program being downloaded from a server to the client through the communications device, wherein the downloaded program executes in the web browser and displays the electronic document in WYSIWYG form to the user, and at least one of the authoring tools has one or more functions that allows a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

further wherein the authoring program is adapted to provide that the authoring tools create an electronic

document and that the electronic document is uploaded to the server computer system in a form allowing a translation program to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with the WYSIWYG image displayed to the user on the client computer by the authoring program, and so that the user need not be concerned with creating a prepress format file.

35. The client computer of claim 34, wherein the computer-readable medium is selected from the group essentially comprising memory and a nonvolatile storage medium.

36. The client computer of claim 34, wherein the communications device is selected from the group essentially comprising a modem and a network card.

37. The client computer of claim 34, wherein the operating environment program comprises an Internet world-wide-web browser.

38. The client computer of claim 34, wherein the operating environment program comprises an intranet world-wide-browser program.

39. The client computer of claim 34, wherein the operating environment program comprises an extranet world-wide-browser program.

40. A server computer system comprising:

- a processor;
- a computer-readable medium;
- a communications device;

an authoring program stored on the computer-readable medium for downloading through the communications device to a client computer and used by a client computer to create an electronic document, wherein the authoring program includes one or more document authoring tools and further wherein at least some of the authoring tools are adapted to create an electronic document;

wherein the downloadable authoring program is adapted to execute in a web browser of the client computer and display the electronic document in WYSIWYG form to the user of the client computer, and at least one of the

authoring tools has one or more functions that allow a user to select and edit at least one element of the electronic document while at least a portion of the electronic document is simultaneously displayed;

the authoring program adapted to provide that the authoring tools create an electronic document and that the electronic document is uploaded to the server computer system in a form allowing a translation program to create the prepress format file so that when the prepress format file is used to produce a document the document is consistent with a WYSIWYG image displayed to the user on the client computer by the authoring program, and so that the user need not be concerned with creating a prepress format file.

41. The server computer system of claim 40, wherein the computer-readable medium is selected from the group essentially comprising memory and a nonvolatile storage medium.

42. The server computer system of claim 40, wherein the communications device is selected from the group essentially comprising a modem and a network card.

43. A computer-readable medium having a computer program stored thereon for downloading to a client computer from a server computer system and for execution on the client computer within the client's web browser, the program comprising means for creating a WYSIWYG document, which is uploaded from the client to the server through a communications device for translation to a suitable prepress format and submission to a printer.

44. A computer-readable medium having a computer program stored thereon for execution on a server computer system, the program comprising:

means downloadable from a server computer to a client computer for creating a WYSIWYG document in the client's web browser, and,

means for translating the document to a suitable prepress format and for sending the document as translated to a printer through a communications device of the server computer system.

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,631,375 B2
DATED : October 7, 2003
INVENTOR(S) : Jecha et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,

Item [54], Title, delete "**ADMINISTRATION AND SEARCH AND REPLACE OF
COMPUTERIZED PREPRESS**" and replace with -- **BROWSER-BASED
COMPUTERIZED PREPRESS** --.

Item [63], **Related U.S. Application Data**, delete "abandoned" and replace with -- Pat. No. 6,247,011 --.

Column 1,

Line 8, delete "abandoned" and replace with -- Pat. No. 6,247,011 --.

Column 11,

Line 6, delete "plate" and replace with -- palette --.

Signed and Sealed this

Tenth Day of May, 2005

Don W. Dunder

JON W. DUDAS

Director of the United States Patent and Trademark Office

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